

UTAH DIVISION OF OIL, GAS AND MINING
STATE DECISION DOCUMENT AND
TECHNICAL ANALYSIS

Canyon Fuel Company, LLC
SUFCO Mine
Pines Tract Revision
ACT/041/002

June 16, 2000

CONTENTS

- * Administrative Overview
- * Location Map
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- * Findings
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- * Determination of Completeness
- * Affidavit of Publication
- * AVS Recommendation
- * Letters of Concurrence
 - Memorandum of Agreement, dated May 30, 2000
 - Section 7 Consultation, FWS, dated April 25, 2000
 - BLM, R2P2 - Recommendation for Approval, dated June 1, 2000
 - BLM, Lease UTU-76195 Issuance, dated September 1, 1999
 - Pines Tract Projects Record of Decision

File in:

☐ Confidential

☐ Shelf

☒ Expandable

Refer to Record No.

Date

In C 0410002.2000

For additional information

0015 Date 06/16/2000
Outgoing

0015



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Kathleen Clarke
Executive Director

Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

COPY

June 16, 2000

Ken May, General Manager
Canyon Fuel Company, LLC
SUFCO Mine
397 South 800 West
Salina, Utah 84654

Re: State Permit for the Pines Tract Lease Addition, Canyon Fuel Company, LLC, SUFCO Mine, ACT/041/002-SR99, Outgoing File

Dear Mr. May:

The Division has found that Canyon Fuel Company, LLC has met all of the requirements for permitting the Pines Tract Lease as part of the SUFCO mine. The Decision Document (including the state permit for the Pines Tract Lease Addition with three conditions) is enclosed.

The three conditions of the permit include:

- 1) Canyon Fuel Company, LLC must submit water quality data electronically to the Division's water quality database by the fourth quarter of 2000 (December 29, 2000).
- 2) Underground coal mining and reclamation activities in federal coal lease UTU-76195 may not commence until a mining plan approval is authorized by the Secretary of the Interior.
- 3) Underground coal mining and reclamation activities in federal coal lease UTU-76195 may not commence until the U. S. Forest Service has provided notice of consent for such activities to the Division.

As explained in the conditions, mining in this lease tract cannot begin until the Forest Service has concurred and the mining plan approval is authorized by the Secretary of the Interior. Please sign both copies of this state permit and return one to the Division.

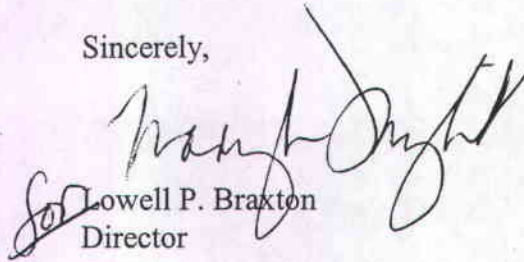
File in: 041/002, 2000, Outgoing
Refer to:
☐ Confidential
☐ Shelf
☒ Expandable
Date 6/16/00 for additional information

COPY

Pines Tract Lease Addition
ACT/041/002-SR99
June 16, 2000
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If you have any questions, please call me.

Sincerely,


Lowell P. Braxton
Director

tm

Enclosure

cc: Joe Wilcox, OSM-WRCC
Elaine Zieroth, Manti La Sal National Forest
Richard Manus, Bureau of Land Management, PFO
Price Field Office

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ADMINISTRATIVE OVERVIEW

Canyon Fuel Company, LLC
SUFCO Mine
Pines Tract Revision
ACT/041/002

June 16, 2000

PROPOSAL

Canyon Fuel Company, LLC proposes to add additional federal lease acreage to the existing SUFCO Mine permit. This additional area is known as the Pines Tract Lease (UTU-76195) and comprises 7,171.66 acres all of which will be mined using underground mining methods. The Pines Tract is contiguous to, and will be accessed through, the existing SUFCO Mine. No new surface facilities or disturbance is planned with the exception of a ventilation portal in Muddy Canyon which will disturb .017 acres.

BACKGROUND

The SUFCO Mine, formerly known as the Convulsion Canyon Mine, is located approximately 30 miles east of Salina, Utah, with the surface facilities and access portals on U. S. Forest Service land in East Spring Canyon, within Section 12, Township 22 South, Range 4 East, Salt Lake Baseline and Meridian. The mine commenced operations in 1941, mining federally-owned coal. The original mine plan was submitted to the U. S. Geological Survey (USGS) and the Utah Division of Oil, Gas and Mining (DOGM) in 1977. Additional information was submitted, and the mine plan was approved by DOGM pursuant to the Utah Mined Land Reclamation Act on September 14, 1977. The USGS approved the plan on February 3, 1978.

In October of 1979, SUFCO submitted additional information to comply with the regulation of the newly implemented Surface Mining Control and Reclamation Act of 1977. A joint OSM/DOGM review was conducted and the mine plan application was declared complete on July 18, 1983. A permanent program permit was issued to the Coastal States Energy Company on May 19, 1987, consisting of five federal leases and one fee lease for a total of 7,355 acres. The need for a waste rock disposal site was soon apparent. Coastal States applied for a disposal site located on a 40-acre tract of private land located approximately 6 miles west of the mine portals. This waste rock site was approved on August 26, 1988, bringing the revised permit area to a total of 7395 acres.

On July 3, 1989, application was made to add another federal lease known as the Quitcupah Lease to the permit area. Approval for the new lease was obtained and a revised permit was issued effective December 21, 1989. This new lease brought the total permit area to 17,301 acres. On December 12, 1996 the permit was transferred to Canyon Fuel Company, LLC.

Pines Tract Lease Addition
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A lease modification to the Quitchupah lease (150 acres) was submitted in January 1999. This was approved as an incidental boundary change and added to the existing permit area on October 20, 1999.

Canyon Fuel Company, LLC acquired the Pines Tract lease through a lease by application (LBA) process. An EIS was completed for the Pines Tract lease on January 28, 1999 and the lease was issued to Canyon Fuel Company, LLC on September 1, 1999.

ANALYSIS

The Canyon Fuel proposal to permit the Pines Tract Lease was submitted on July 16, 1999. After an initial review Canyon Fuel Company submitted additional information that satisfied the Division's completeness requirements. The application was determined to be administratively complete on November 10, 1999. An extensive technical review was initiated which also involved coordination with other state and federal agencies. Due to concern about some archeological sites on the surface of the lease an Memorandum of Agreement (MOA) was developed between the USDA-Manti LaSal National Forest, the Utah State Historic Preservation Officer, the Canyon Fuel Company, LLC, the Utah Division of Oil, Gas and Mining and the Advisory Council on Historic Preservation (signed on May 30, 2000). Compliance with the MOA will ensure that the archeological sites are adequately protected.

Extraction of the coal will primarily be by longwall mining methods with a maximum estimated production of approximately 8.0 million tons per year. The addition of this lease to the permit area will extend the life of the SUFCO Mine approximately 7 years. The entire permit area would be 24,632 acres.

Public notice of this permitting action was published in the Emery County Progress on November 23, 30, December 7, 14, 1999. The thirty day comment period proceeded with no comments received.

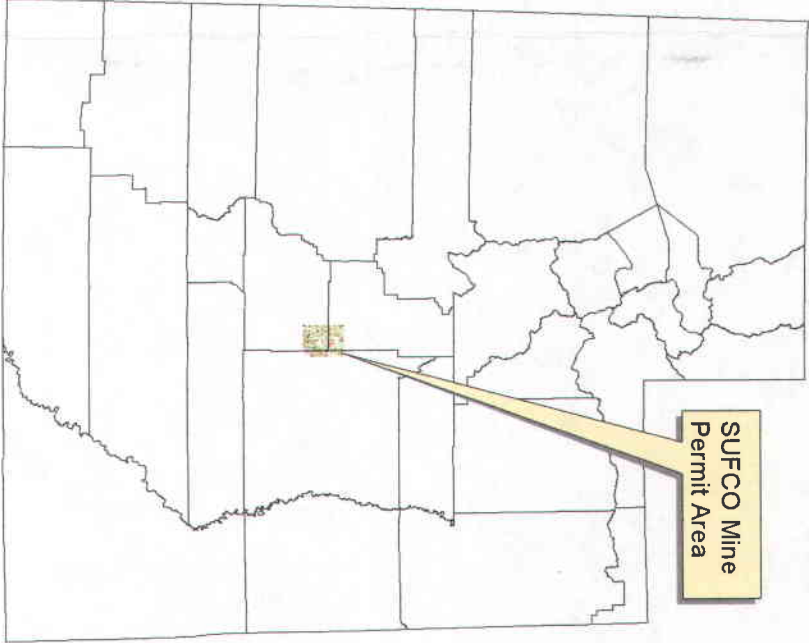
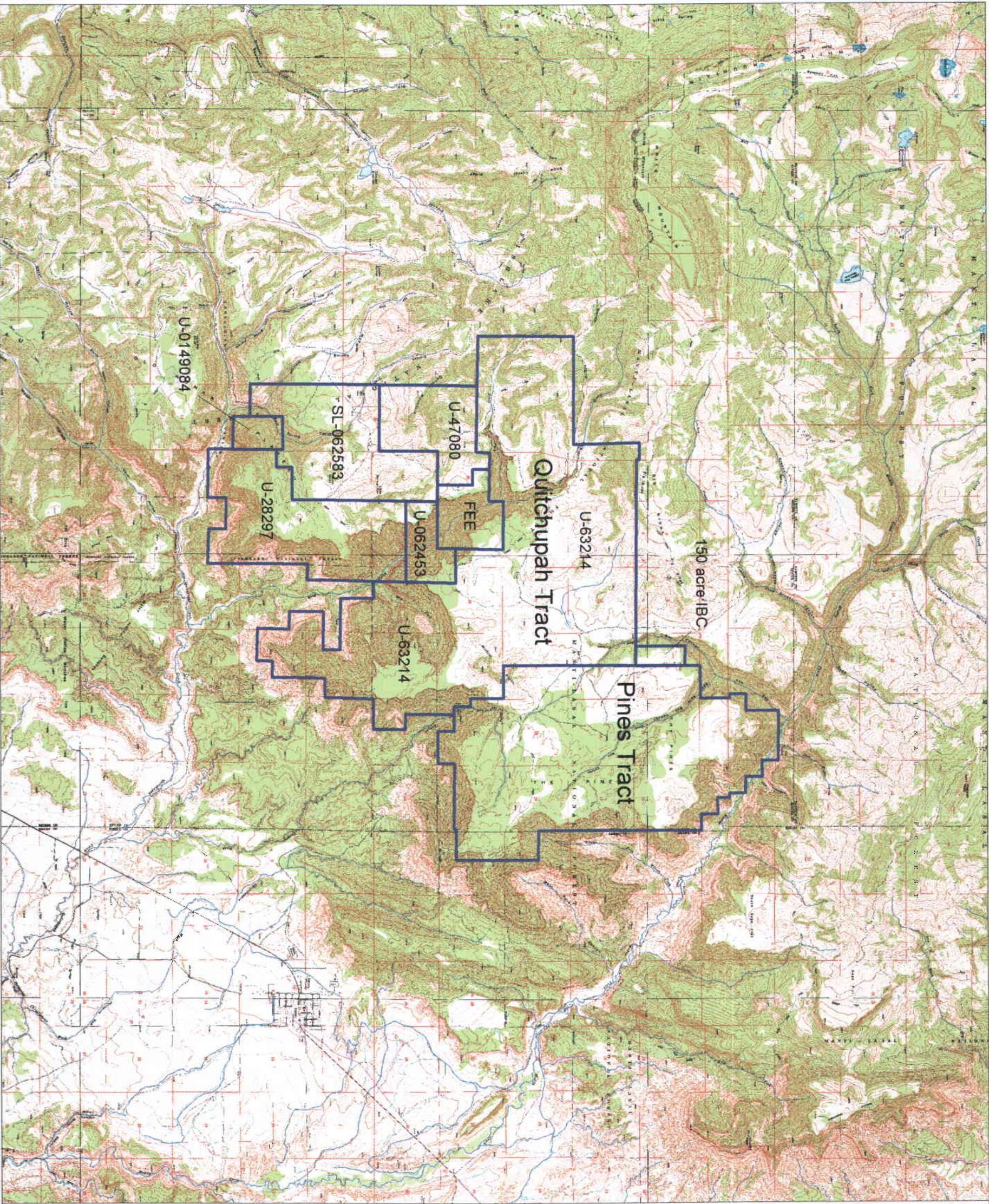
RECOMMENDATION

This recommendation is based on the complete permit application package (PAP), the Technical Analysis (TA) conducted by the Division, the Cumulative Hydrologic Impact Assessment CHIA also prepared by the Division, and the administrative record which includes the archeological MOA. Canyon Fuel Company, LLC has demonstrated that mining within the permit boundary can be done in conformance with the Surface Mining Control and Reclamation Act, and the

Pines Tract Lease Addition
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corresponding Utah Act and performance standards. The 510 (C) report on the Applicant Violator System for this mine has an issue recommendation.

It is recommended that approval be given for the addition of the Pines Tract to the SUFCO mine with conditions as outlined in Attachment A to the Permit.



SUFCO Mine
Permit Area

LEGEND

 Lease Areas

 Streams



Utah Dept. Natural Resources
Division of Oil, Gas & Mining

Lease Areas Map

SUFCO Mine: Pines Tract Addition

Drawn by: KWW

File: Pines.apr

Date: June 16, 2000

PERMITTING CHRONOLOGY

Canyon Fuel Company, LLC
SUFCO Mine
Pines Tract Revision
ACT/041/002
SUFCO MINE

July 16, 1999	Pines Tract Lease Addition to the SUFCO Mine is submitted by Canyon Fuel Company, LLC.
September 16, 1999	Initial Completeness Review sent to Canyon Fuel Company, LLC.
November 10, 1999	PAP determined administratively complete.
November 23, 1999	Notice of Completeness about the Pines Tract Lease Addition sent to federal, state, and local agencies.
November 23, 30 December 7 and 14, 1999	Public Notice regarding the Pines Tract Lease Addition being added to the current SUFCO permit.
January 14, 2000	No comments received as a result of the public notice.
February 10, 2000	Technical review sent to Canyon Fuel Company, LLC.
April 25, 2000	Section 7 Consultation of the Fish and Wildlife Service completed for the Pines Tract Lease Addition.
May 30, 2000	Memorandum of Agreement with Canyon Fuel Company, LLC, State Historic Preservation Office, Manti La Sal National Forest, and Division of Oil, Gas, and Mining for Historic and Cultural Resources Associated with the Pines Lease Tract and the 150-acre addition to the Quitchupah Lease.
June 1, 2000	Recommendation for Approval of the R2P2 from the Bureau of Land Management.
June 16, 2000	State permit issued with three conditions.

MINE PLAN INFORMATION

Canyon Fuel Company, LLC
SUFCO Mine
Pines Tract Revision
ACT/041/002

Mine Name: SUFCO Mine State ID: ACT/041/002

Permittee: Canyon Fuel Company, LLC County: Sevier & Emery

Contact Person(s): Ken May, Telephone: (435) 286-4880
Position: General Manager

New/Existing: Both Mining Method: Longwall with continuous miner development

Federal Lease No(s): U-28297, U-062453, U-0149084, SL-062583, U-47080, U-63214, UTU-76195

State Lease No(s): none

Other Leases (identify): Canyon Fuel Company, LLC Fee

Ownership Data:

<u>Surface Resources (acres):</u>	<u>Existing Permit Area</u>	<u>Proposed Permit Area</u>	<u>Total Life Of Mine Area</u>
Federal	<u>16768.26</u>	<u>7171.66</u>	<u>23939.92</u>
State	<u>0</u>	<u></u>	<u></u>
Private	<u>680</u>	<u>0</u>	<u>680</u>
Other	<u>13.03*</u>	<u></u>	<u>13.03 *</u>
TOTAL	<u>17461.29</u>	<u>7171.66</u>	<u>24632.95</u>

* U. S. Forest Service Special use permit for surface facilities.

Coal Ownership (acres):

Federal	<u>16768.26</u>	<u>7171.66</u>	<u>23939.92</u>
State	<u>0</u>	<u></u>	<u></u>
Private	<u>680</u>	<u></u>	<u>680</u>
Other	<u></u>	<u></u>	<u></u>
TOTAL	<u>17448.26</u>	<u>7171.66</u>	<u>24619.92</u>

Mine Plan Information
ACT/041/002
Page 2

<u>Disturbed Acres</u>	<u>70.399</u>	<u>.017</u>	<u>70.416</u>
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<u>Minable Coal (tons)</u>	<u>77.3</u>	<u>53.6</u>	<u>130.9</u>
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<u>Recoverable Reserve Data</u>	<u>Name</u>	<u>Thickness</u>	<u>Depth</u>
Seam	<u>Upper Hiawatha</u>	<u>9' - 18'</u>	<u>600' - 1800'</u>

Mine Life: 1941-2016

Average Annual Production: 8 Million Tons

Date Projected Annual Rate Reached: 2000

FINDINGS

Canyon Fuel Company, LLC
Pine Tract Lease Revision
SUFCO Mine
ACT/041/002

June 16, 2000

1. The permit application for the extraction of coal and the associated ventilation portal for the Pines Tract Revision to the SUFCO Mine is accurate and complete and all requirements of the Surface Mining Control and Reclamation Act, and the approved Utah State Program (the "Act") are in compliance. See Technical Analysis dated May 30, 2000 (R645-300-133.100)
2. The applicant proposes acceptable practices for the reclamation of disturbed lands. The Division has determined that reclamation, as required by the Act can be feasibly accomplished following the approved mining and reclamation plan. (R645-300-133.710)
3. An assessment of the probable cumulative impacts of all anticipated coal mining and reclamation activities in the general area on the hydrologic balance has been conducted by the Division and no significant impacts were identified. See CHIA dated June 14, 2000. The Mining and Reclamation Plan (MRP) proposed under the revised application has been designed to prevent damage to the hydrologic balance in the permit area and in associated off-site area (R645-300-133.400 and UCA 40-10-11 (2)(c)).
4. The proposed lands to be included within the permit area are:
 - a. Not included within an area designated unsuitable for underground coal mining operation (R645-300-133.220);
 - b. not within an area under study for designated land unsuitable for underground coal mining operations (R645-300-133.210);
 - c. not on any lands subject to the prohibitions or limitation of 30 CFR 761.11 {a} (national parks, etc), 761.11 {f} (public buildings, etc.) and 761.11 {g} (cemeteries);
 - d. not within 100 feet of a public road except at the location where the public road accesses the property (R645-300-133.220); and
 - e. not within 300 feet of any occupied dwelling (R645-300-133.220).
5. The operation would not affect the continued existence of any threatened or

endangered species or result in the destruction or adverse modification of their critical habitats as determined under the Endangered Species Act of 1973. See April 25, 2000 Section 7 Consultation letter from U. S. Fish and Wildlife Service. (16 USC 1531 et seq.) (R645-300-133.500)

6. The Division's issuance of a permit is in compliance with the National Historic Preservation Act and implementing regulations (36 CFR 800). See MOA signed by State Historic Preservation Officer, dated May 30, 2000. (R645-300-133.600)
7. The applicant has the legal right to enter and complete mining activities in the Pines Tract area through a coal lease issued by the Bureau of Land Management. See letter from the BLM dated September 1, 1999. (R645-300-133.300)
8. A 510 (c) report has been run on the Applicant Violator System (AVS), which shows that: prior violations of applicable laws and regulations have been corrected; neither Canyon Fuel Company, LLC or any affiliated company, are delinquent in payment of fees for the Abandoned Mine Reclamation Fund; and the applicant does not control and has not controlled mining operations with demonstrated pattern of willful violations of the Act of such nature, duration, and with such resulting irreparable damage to the environment as to indicate an intent not to comply with the provisions of the Act. See attached 510 (c) report dated June 15, 2000). (R645-300-133.730)
9. Underground mining operations to be performed under the permit will not be inconsistent with other operations anticipated to be performed in areas adjacent to the proposed permit area.
10. Canyon Fuel Company, LLC has posted a surety bond for the SUFCO Mine in the amount of \$3,988,000. (R645-300-134)
11. No lands designated as prime farmlands or alluvial valley floors occur on the permit area. (R645-302-313.100 and R645-302-321.100)
12. The proposed postmining land-use of the permit area is the same as the pre-mining land use and has been approved by the Division and the surface land management agency the Forest Service.
13. The Division has made all specific approvals required by the Act, the Cooperative Agreement, and the Federal Lands Program.
14. All procedures for public participation required by the Act, and the approved Utah State Program are in compliance. The public advertisement was noticed in the Emery County Progress on November 23, 30, December 7, 14, 1999. No

FEDERAL

June 16, 2000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
1594 West North Temple
Box 145801
Salt Lake City, Utah 84114-5801
(801) 538-5340

This permit, ACT/041/002, is issued for the state of Utah by the Utah Division of Oil, Gas and Mining (DOGM) to:

Canyon Fuel Company, LLC
6955 South Union Park Center, Suite 540
Midvale, Utah 84047
(801) 596-7111

for the SUFCO Mine (previously the Convulsion Canyon Mine.) Canyon Fuel Company, LLC is the lessee of federal, state and fee-owned property. A performance bond is filed with the DOGM in the amount of \$3,988,000.00, payable to the state of Utah, Division of Oil, Gas and Mining and the Office of Surface Mining Reclamation and Enforcement (OSMRE). DOGM must receive a copy of this permit signed and dated by the permittee.

- Sec. 1 STATUTES AND REGULATIONS - This permit is issued pursuant to the Utah Coal Mining and Reclamation Act of 1979, Utah Code Annotated (UCA) 40-10-1 et seq, hereafter referred to as the Act.
- Sec. 2 PERMIT AREA - The permittee is authorized to conduct underground coal mining and reclamation activities on the following described lands within the permit area at the SUFCO Mine situated in the state of Utah, Sevier and Emery Counties, and located:

Township 20 South, Range 5 East, SLBM

Section 35: S1/2NE1/4, SE1/4NW1/4, NE1/4SW1/4, S1/2SW1/4, SE1/4
Section 36: W1/2SW1/4, SE1/4SW1/4

Township 21 South, Range 4 East, SLBM

Section 12: E1/2SE1/4
Section 13: E1/2NE1/4, S1/2
Section 14: E1/2SW1/4, SE1/4
Section 23: E1/2, E1/2W1/2
Section 24: All
Section 25: All
Section 36: All

Township 21 South, Range 5 East, SLBM

Section 1: lots 3-4, S1/2SW1/4, SW1/4SE1/4
Section 2: lots 1-4, S1/2S1/2
Section 10: E1/2, SE1/4NW1/4, E1/2SW1/4, E1/2E1/2SW1/4SW1/4,
E1/2E1/2NW1/4SW1/4, E1/2 E1/2SW1/4NW1/4
Section 11
thru 24: All
Section 25: N1/2, N1/2S1/2
Section 26: N1/2, NE1/4SW1/4, E1/2NW1/4SW1/4, SE1/4,
W1/2NW1/4SW1/4, SW1/4SW1/4
Section 27
thru 34: All
Section 35: Lots 1, 2, W1/2NW1/4, N1/2SW1/4

Township 21 South, Range 6 East, SLBM

Section 19: lots 3-4, E1/2SW1/4
Section 30: lots 1-3, E1/2NW1/4, NE1/4SW1/4

Township 22 South, Range 4 East, SLBM

Section 1: All
Section 12: N1/2, N1/2SE1/4, portions of NE1/4SW1/4 and S1/2
Section 18: NW1/4NE1/4

Township 22 South, Range 5 East, SLBM

- Section 3: Lots 1-4, S1/2N1/2, NE1/4SW1/4, S1/2SW1/4, N1/2SE1/4, SW1/4SE1/4
- Section 4: Lots 1, 2, S1/2NE1/4, SE1/4SE1/4, W1/2W1/2
- Section 5: All
- Section 6: All
- Section 7: All
- Section 8: All
- Section 9: NE1/4NE1/4
- Section 10: W1/2NE1/4, NW1/4, N1/2SW1/4
- Section 17: NE1/4, N1/2NW1/4
- Section 18: N1/2

This legal description is for the permit area of the SUFCO Mine included in the mining and reclamation plan on file at the Division. The permittee is authorized to conduct underground coal mining and reclamation activities on the foregoing described property subject to the conditions of the leases, including all conditions and all other applicable conditions, laws and regulations.

- Sec. 3 COMPLIANCE - The permittee will comply with the terms and conditions of the permit, all applicable performance standards and requirements of the State Program.
- Sec. 4 PERMIT TERM - This permit expires on May 20, 2002.
- Sec. 5 ASSIGNMENT OF PERMIT RIGHTS - The permit rights may not be transferred, assigned or sold without the approval of the Director, DOGM. Transfer, assignment or sale of permit rights must be done in accordance with applicable regulations, including but not limited to 30 CFR 740.13(e) and R645-303.
- Sec. 6 RIGHT OF ENTRY - The permittee shall allow the authorized representative of the DOGM, including but not limited to inspectors, and representatives of OSMRE, without advance notice or a search warrant, upon presentation of appropriate credentials, and without delay to:
 - A. have the rights of entry provided for in 30 CFR 840.12, R645-400-110, 30 CFR 842.13 and R645-400-220; and,
 - B. be accompanied by private persons for the purpose of conducting an inspection in accordance with R645-400-100 and 30 CFR 842, when the inspection is in response to an alleged violation reported by the

private person.

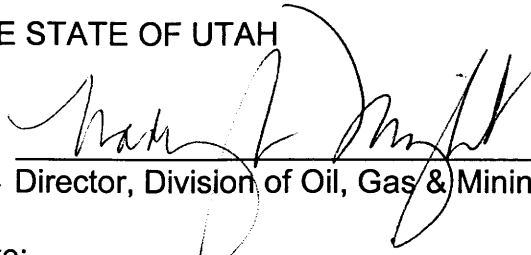
- Sec. 7 SCOPE OF OPERATIONS - The permittee shall conduct underground coal mining and reclamation activities only on those lands specifically designated as within the permit area on the maps submitted in the mining and reclamation plan and permit application and approved for the term of the permit and which are subject to the performance bond.
- Sec. 8 ENVIRONMENTAL IMPACTS - The permittee shall minimize any adverse impact to the environment or public health and safety through but not limited to:
- A. accelerated monitoring to determine the nature and extent of noncompliance and the results of the noncompliance;
 - B. immediate implementation of measures necessary to comply; and
 - C. warning, as soon as possible after learning of such noncompliance, any person whose health and safety is in imminent danger due to the noncompliance.
- Sec. 9 DISPOSAL OF POLLUTANTS - The permittee shall dispose of solids, sludge, filter backwash or pollutants in the course of treatment or control of waters or emissions to the air in the manner required by the approved Utah State Program and the Federal Lands Program which prevents violation of any applicable state or federal law.
- Sec. 10 CONDUCT OF OPERATIONS - The permittee shall conduct its operations:
- A. in accordance with the terms of the permit to prevent significant, imminent environmental harm to the health and safety of the public; and
 - B. utilizing methods specified as conditions of the permit by DOGM in approving alternative methods of compliance with the performance standards of the Act, the approved Utah State Program and the Federal Lands Program.
- Sec. 11 EXISTING STRUCTURES - As applicable, the permittee will comply with R645-301 and R645-302 for compliance, modification, or abandonment of existing structures.

- Sec. 12 RECLAMATION FEE PAYMENT - The operator shall pay all reclamation fees required by 30 CFR part 870 for coal produced under the permit, for sale, transfer or use.
- Sec. 13 AUTHORIZED AGENT - The permittee shall provide the names, addresses and telephone numbers of persons responsible for operations under the permit to whom notices and orders are to be delivered.
- Sec. 14 COMPLIANCE WITH OTHER LAWS - The permittee shall comply with the provisions of the Water Pollution Control Act (33 USC 1151 et seq.) and the Clean Air Act (42 USC 7401 et seq), UCA 26-11-1 et seq, and UCA 26-13-1 et seq.
- Sec. 15 PERMIT RENEWAL - Upon expiration, this permit may be renewed for areas within the boundaries of the existing permit in accordance with the Act, the approved Utah State Program and the Federal Lands Program.
- Sec. 16 CULTURAL RESOURCES - If during the course of mining operations, previously unidentified cultural resources are discovered, the permittee shall ensure that the site(s) is not disturbed and shall notify DOGM. DOGM, after coordination with OSMRE, shall inform the permittee of necessary actions required. The permittee shall implement the mitigation measures required by DOGM within the time frame specified by DOGM.
- Sec. 17 APPEALS - The permittee shall have the right to appeal as provided for under R645-300.
- Sec. 18 SPECIAL CONDITIONS - There are special conditions associated with this permitting action as described in Attachment A.

The above conditions (Secs. 1-18) are also imposed upon the permittee's agents and employees. The failure or refusal of any of these persons to comply with these conditions shall be deemed a failure of the permittee to comply with the terms of this permit and the lease. The permittee shall require his agents, contractors and subcontractors involved in activities concerning this permit to include these conditions in the contracts between and among them. These conditions may be revised or amended, in writing, by the mutual consent of DOGM and the permittee at any time to adjust to changed conditions or to correct an oversight. DOGM may amend these conditions at any time without the consent of the permittee in order to make them consistent with any new federal or state statutes and any new regulations.

Permit
ACT/041/002
June 16, 2000
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THE STATE OF UTAH

By: 
for Director, Division of Oil, Gas & Mining

Date: _____

I certify that I have read, understand and accept the requirements of this permit and any special conditions attached.

Authorized Representative of the Permittee

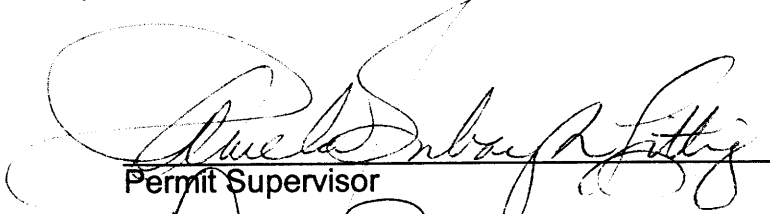
Date: _____

ATTACHMENT A

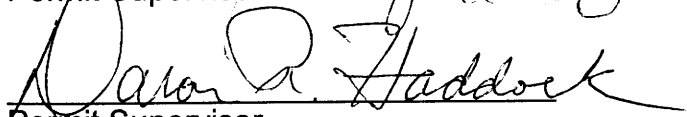
- 1) Canyon Fuel Company, LLC must submit water quality data electronically to the Division's water quality database by the fourth quarter of 2000 (December 29, 2000).
- 2) Underground coal mining and reclamation activities in federal coal lease UTU-76195 may not commence until a mining plan approval is authorized by the Secretary of the Interior.
- 3) Underground coal mining and reclamation activities in federal coal lease UTU-76195 may not commence until the U. S. Forest Service has provided to DOGM notice of consent for such activities.

comments were received. (R645-300-120)

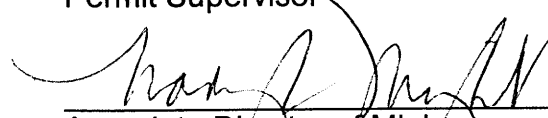
15. All existing structures that will be used in conjunction with the SUFCO mine are in compliance with the performance standards of R645-301 and R645-302. Addition of the Pines Tract lease will not alter or affect the use of existing structures. (R645-300-133.720)



Paula S. Fitts
Permit Supervisor



Aaron A. Haddock
Permit Supervisor

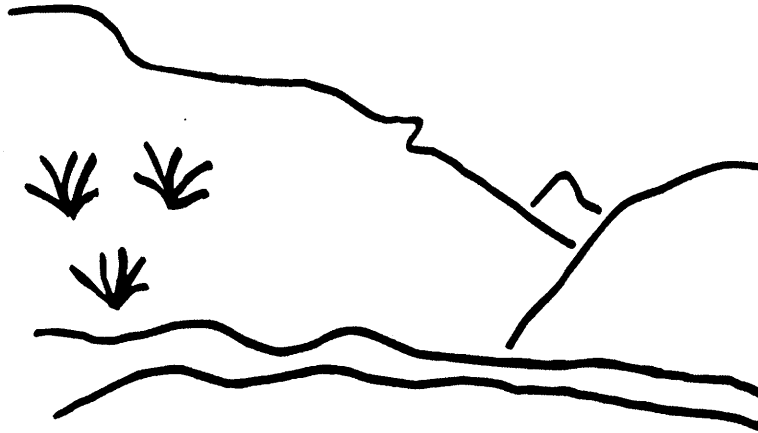


Paul J. Smith
Associate Director of Mining



Paul J. Smith
for Director

State of Utah



Utah Oil Gas and Mining

Coal Regulatory Program

SUFCO
Pines Track Significant Revision
ACT/041/002- SR99D-4
Technical Analysis
May 30, 2000

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INTRODUCTION

INTRODUCTION

The Division received a significant revision to the SUFCO Mine Mining and Reclamation Plan on July 16, 1999. This revision is for the addition of Federal Leases UTU-76195, Pines Tract Lease (PTL). Division determined the proposal to be administratively incomplete on September 7, 1999. The permittee submitted additional information on October 18, 1999, and the Division determined the new information Administratively Complete and ready for technical review.

Submittal of the PTL follows the permitting of the Box Canyon Amendment, the 150 acre Amendment and the 160 acre Incidental Boundary Change. These mining areas lie west of the proposed Pines Tract Lease. Mining has already taken place adjacent to Box Canyon and will advance through the 150 acre revision by the end of June, 2000. No surface facilities are planned other than a breakout in Muddy Creek Canyon for ventilation.

Canyon Fuel Company, LLC, (Canyon Fuel) owner and operator of the SUFCO Mine submitted a significant revision to their Mining and Reclamation Plan (MRP) on June 8, 1999. The proposed tract encompasses 5,786 acres and contains an estimated 71 million tons of recoverable coal reserves. The tract lies directly east of the existing mine permit area. The addition of the PTL will increase production of the mine and extend operations 15 to 20 years.

This lease addition has been under review by the U.S. Forest Service (USFS) and the U.S. Bureau of Land Management (BLM) through the NEPA process, resulting in development of the Pines Tract Project, Final Environmental Impact Statement (FEIS). On January 28, 1999, the USFS and BLM issued a Record of Decision (ROD) regarding this proposed action. As the Surface Management Agency, the Forest Service has conducted their own review and submitted comments.

This significant revision has been studied and evaluated along with information drawn from all those known to have been developed. The format presented here will be to first review the mine Operator's Application and then draw from the following:

- Pines Tract Project, Final Environmental Impact Statement, USFS and BLM, (FEIS)
- Evaluation and Prediction of Potential Surface Subsidence Impacts from Longwall Mining under the Box Canyon Area, Sufco Mine, Agapito Associates, Inc.(AGAPITO)
- Hydrology and Effects of Mining in the Quitcupah and Pines Coal-Lease Tracts, Central Utah, U.S.G.S. Report 90-4084, by Thiros & Cordy (USGS)
- Probable Impact From Longwall Coal Mining at the SUFCO Mine to the Hydrologic Balance of Box Canyon Creek, Sevier County, Utah (MAYO)

SUMMARY OF OUTSTANDING DEFICIENCIES

The Technical Analysis regarding the proposed permit changes is complete at this time, no outstanding deficiencies remain.

ADMINISTRATIVE INFORMATION

ADMINISTRATIVE INFORMATION**OWNERSHIP AND CONTROL**

Regulatory Reference: R645-301-112

Analysis:

The application includes no changes to this section. All land within and contiguous to the proposed addition to the permit area is owned by the United States, so no updates to the land ownership section are needed.

Findings:

Information provided in the application is considered adequate to meet the requirements of this section of the regulations. The Division will need to check ownership and control information currently in the mining and reclamation plan with the applicant violator system.

VIOLATION INFORMATION

Regulatory Reference: R645-301-113

Analysis:

The permittee has proposed to update violation information. Information on violations issued prior to 1993 would be eliminated, and more recent violations would be added. The permittee has proposed no other changes to this section of the mining and reclamation plan.

Findings:

Information provided in the proposal is considered adequate to meet the requirements of this section of the regulations. Violation information will need to be checked in the applicant violator system.

RIGHT OF ENTRY

Regulatory Reference: R645-301-114

Analysis:

The application contains a copy of Coal Lease UTU-76195 which was issued by the Bureau of Land Management to Canyon Fuel Company on September 1, 1999. The application text also includes a

new legal description and acreages for the lease. This satisfies the requirements of this section of the regulations.

Findings:

Information provided in the proposal is considered adequate to meet the requirements of this section of the regulations. In the lease area, surface and mineral rights are not severed.

UNSUITABILITY CLAIMS

Regulatory Reference: R645-301-115

Analysis:

The application includes no changes in this section. The Division has no indication the proposed addition to the permit area is within an area designated as unsuitable for coal mining and reclamation operations or under study for such designation.

The application identifies no occupied dwellings within the proposed addition. The surface of the plateau contains unimproved Forest Service roads that could be affected by subsidence, and the Environmental Impact Statement (EIS) considers these effects. The Forest Service did not restrict mining to reduce potential effects on roads, so their decision to allow mining constitutes approval to undermine the roads.

Findings:

Information provided in the proposal is considered adequate to meet the requirements of this section of the regulations. The Division is not aware of any petition to designate the area as unsuitable for coal mining and reclamation operations.

PERMIT TERM, INSURANCE, PROOF OF PUBLICATION, AND FACILITIES OR STRUCTURES USED IN COMMON

Regulatory Reference: R645-301-116, R645-301-117

Analysis:

The proposed revision will not affect the permit term.

The insurance policy currently on file with the Division meets regulatory requirements.

On February 7, 2000, the Division approved an amendment where the Pines Tract public notice was included in the existing mining and reclamation plan.

ADMINISTRATIVE INFORMATION

There are no changes to the section dealing with facilities or structures used in common.

Findings:

Information provided in the proposal is considered adequate to meet the requirements of this section of the regulations.

ENVIRONMENTAL RESOURCE INFORMATION

Regulatory Reference: Pub. L 95-87 Sections 507(b), 508(a), and 516(b); 30 CFR Sec. 783., et. al.

GENERAL

Regulatory Reference: 30 CFR Sec. 783.12; R645-301-411, -301-521, -301-721.

Analysis:

PTL is located on the high Wasatch Plateau of the Manti-La Sal National Forest in Sanpete County. The surface rock forms near level outcrops that rims the area around to steep gorges of Box Canyon and Muddy Creek Canyon. At the 8000 to 9000 feet elevation the area usually receive several feet of snow. The hard sandstone cap rock reduces erosion so that the high mountain streams flow clear and product a high quality runoff. The clarity of flow changes as it cuts over the softer clays, muds and shales of the lower formations which form the canyon slopes and bottoms.

The massive Castlegate Sandstone forms the consolidated rim of Box Canyon and Muddy Creek Canyon. The coal bearing units are found in the Blackhawk Formation which underlies the Castlegate Sandstone. The Blackhawk Formation contains interbedded sequences of sandstones, siltstones, shales, mudstones and coal. The Upper Price River Formation overlies the area to the east of the canyon and some knolls of the proposed lease.

Findings:

The permittee has submitted sufficient information for this section.

PERMIT AREA

Regulatory Requirements: 30 CFR Sec. 783.12; R645-301-521.

Analysis:

The permit boundaries are shown on Plate 5-6, Land Ownership and Permit Area Map. The plate has a scale of 1" = 2000'. It shows the existing permit boundaries and the proposed Pines Tract expansion.

On Page 1-33 through 1-35 the Permittee lists the legal descriptions for the federal leases and fee ground. The Permittee also states that 13.03 acres under U.S. Forest Service special use permits are included in the permit and disturbed areas.

Findings:

The Permittee has met the minimum requirements of this section.

HISTORIC AND ARCHEOLOGICAL RESOURCE INFORMATION

Regulatory Reference: 30 CFR Sec. 783.12; R645-301-411.

Analysis:

The current mining and reclamation plan, as amended for the recent 150-acre incidental boundary change, contains a report on cultural resources in the Pines Tract. The Pines Tract contains ten previously recorded and twelve newly identified cultural resource sites. Of these, seven sites are considered eligible for nomination to the National Register of Historic Places. Also discovered were eight isolated artifacts.

The sites include a historic sawmill and associated buildings and several lithic scatters and rock shelters. The rock shelters are near canyon rims, and the sawmill is in the upper part of the East Fork of Box Canyon.

The current mining and reclamation plan indicates the permit area contains no cemeteries, public parks, or units of the National System of Trails or the Wild and Scenic Rivers System, and none are identified in the application. Therefore, it can be assumed none are in the proposed addition to the permit area.

Findings:

Information provided in the proposal is adequate to meet the requirements of this section of the regulations.

CLIMATOLOGICAL RESOURCE INFORMATION

Regulatory Reference: 30 CFR Sec. 783.18; R645-301-724.

Analysis:

Climatological information is provided in Chapter 7, page 7-23. Data has been collected at the mine surface facilities since July 1996. Normal annual precipitation at the mine is about 18 inches per year.

Findings:

The permittee has submitted sufficient information for this section.

VEGETATION RESOURCE INFORMATION

Regulatory Reference: 30 CFR Sec. 783.19; R645-301-320.

Analysis:

Appendix 3-9 contains a discussion of plant communities in the lease area, including dominant species and approximate percentage of the area covered by each community. The proposed breakout is in an alderleaf mountain mahogany/Salina wild rye community.

Vegetation communities are mapped on Plate 3-1. This map shows riparian communities along both forks of Box Canyon Creek and next to Muddy Creek.

The Pines Tract portion of Plate 3-1 has vegetation mapping information directly from the Environmental Impact Statement. The vegetation community classification scheme is different in the Pines Tract compared to the rest of the permit area, and boundary lines do not match between the Pines Tract and Quitchupah areas. The map shows the sources for the two different sets of information.

The current mining and reclamation plan contains quantitative vegetation information for several areas within the permit area, not just the surface facilities area. The vegetation communities sampled include at least three that are similar to the mountain mahogany/Salina wild rye community in the breakout area, including ponderosa pine/manzanita/mountain brush, mountain brush, and pinyon/juniper/mountain mahogany.

For the breakout, the permittee only plans to disturb 0.017 acres, an area of about 720 square feet or the equivalent of a square with sides of about 27 feet. Considering the small size of the breakout and considering the current plan contains quantitative vegetation information for communities very similar to what exists at the proposed breakout, the Division does not feel additional quantitative vegetation data is needed for the breakout area.

By lease stipulation, the permittee is required to monitor the effects of underground mining on vegetation, and the current mining and reclamation plan contains a plan to do this with color infrared photography every five years. Color infrared photography can detect water stress, so it is appropriate for monitoring potential effects of mining on riparian vegetation.

The Forest Service commented that the permittee should monitor some hanging garden communities in Box Canyon. The permittee is monitoring Link Trailcumbines and other vegetation in the main fork of Box Canyon using photopoints, and the mine plan contains a commitment to do this monitoring.

Link Canyon contains some segments of riparian and/or wetland vegetation, particularly below the Link Canyon Mine portals. These areas are shown on Plate 3-1. These areas should be specifically included in the color infrared photographs.

Findings:

Information provided in the proposal is adequate to meet the requirements of this section of the regulations.

FISH AND WILDLIFE RESOURCE INFORMATION

Regulatory Reference: 30 CFR Sec. 784.21; R645-301-322.

Analysis:

Wildlife Information

Appendix 3-9 contains a report with a discussion of wildlife use of the area. According to this report, there are about 80 species of mammals, 130 species of birds, eight amphibians, and 17 reptiles that may occur in the Pines Tract area.

Plate 3-2 shows elk ranges, and Plate 3-3 shows deer ranges and raptor nests. Most of the proposed addition to the permit area contains critical elk winter range. Nearly all of the area is high priority deer winter range.

The proposed addition contains six golden eagle nests and one falcon scrape. According to Plate 3-3, four of the eagle nests were inactive and two were tended, but it is not clear how current this data is. The permittee commits in the mining and reclamation plan to monitor any area with suitable habitat where raptor nests could be adversely affected by mining for both known and potential new nests. This will be done annually on a helicopter flight near the end of May.

Muddy Creek and the lower portion of Box Canyon Creek support fish populations. These barely enter parts of the Pines Tract lease but would not be undermined.

Threatened and Endangered Species

As part of the 150-acre incidental boundary change, lists of threatened, endangered, and sensitive species have been recently updated. Appendix 3-9 is a report on the vegetation and wildlife of the Pines Tract area, and it discusses threatened, endangered, and sensitive species that might be in the area. All but one of the listed threatened and endangered plant species discussed in the report grow at elevations lower than the mine; they are basically desert species and are adapted to soils derived from geologic formations not found within the Pines Tract area. The only high elevation species is Heliotrope milkvetch (*Astragalus montii*) which is known only from Flagstaff limestone at elevations of 10,990 to 11,320 feet on the Wasatch Plateau. Flagstaff limestone does not outcrop in the current permit area or in the proposed addition, and the highest elevation in the mine area is about 9160 feet on Duncan Mountain, well below the reported lower elevation limit for this species.

Table 2 of the report in Appendix 3-9 lists seven sensitive plant species that were investigated for the EIS. Of these, only one, the Link Trail columbine (*Aquilegia flavescens* Var. *rubicunda*), has been documented to occur in the area. Two other species, the Arizona willow (*Salix arizonica*) and canyon sweetvetch (*Hedysarum occidentale* Var. *canone*) have potential habitat in the proposed addition to the permit area, but they have not been found.

Link Trail columbines have been found in both the main and east forks of Box Canyon, and although they have been found in areas with no obvious subsurface water source, they mostly grow in relatively wet areas, often in cracks in the sandstone. The most likely effects to Link Trail columbine

ENVIRONMENTAL RESOURCE INFORMATION

plants would be from loss of water. Some of the populations in the main fork of Box Canyon are being monitored for possible effects caused by mining. The east fork has not been surveyed as extensively as the main fork, and it is not known if the permittee documented the location(s) of any population(s).

Longwall mining to the east of the main fork of Box Canyon is expected to occur in 2000, so the effects of this mining on groundwater and on the populations of Link Trail columbines in this canyon should be evident before any mining occurs east of the east fork of Box Canyon. The permittee has committed monitor columbines in the east fork if it is determined that mining negatively affects the populations monitored as part of the 150-acre incidental boundary change east of the main fork.

Table 3 in Appendix 3-9 includes ten listed threatened, endangered, and candidate wildlife species that were evaluated for occurrence in the Pines Tract area. These are the same species included in the EIS. Peregrine falcons were included in the analysis, but they are no longer listed as threatened or endangered. They are still protected, however.

Bald eagles could occasionally pass through or roost in the area, but the mine is unlikely to have any negative effects.

According to the EIS, the willow flycatcher has recently been found on the Wasatch Plateau north of the mine area, but it is not known if this was the southwestern willow flycatcher subspecies. The Forest Service reviewed habitats in the project area for the EIS and determined that "... while some habitat does exist in the area, this habitat is not suitable as willow flycatcher nesting habitat."

Except for peregrine falcons which have been documented to nest within about one-half mile of the Pines Tract, none of the other wildlife species in Table 3 is likely to occur in the area. Through water depletions, the mine could potentially adversely affect the four fish species listed, but the increase in the size of the permit area is not expected to increase water consumption.

Spotted bats, northern goshawks, and northern three-toed woodpeckers have been found in the project area, and the Pines Tract contains potential habitat for flammulated owls. All of these are Forest Service Region 4 Sensitive Species.

The Forest Service commented verbally that the sage grouse is a Forest Service Region 4 sensitive species that should be included in the list in Table 3-3; however, the permittee indicated in their cover letter for the March 9, 2000, submittal that the most current list of sensitive species does not include the sage grouse. Once it is officially listed, the plan will be modified accordingly.

Findings:

Information provided in the proposal is adequate to meet the requirements of this section of the regulations.

SOILS RESOURCE INFORMATION

Analysis:

Appendix 2.8. briefly describes the soil map units found in the PTL.

The soil survey information for the PTL is found in Appendix 2.7. Attachment A of Appendix 2.7 contains an Order III survey of portions of the PTL. Attachment B and C of Appendix 2.7 contain the Order I survey of the Muddy Canyon breakout location. This survey was conducted in June of 1999 by James Nyenhuis, a Certified Professional Soil Scientist.

The location of the breakout is a steep (70%) slope which is covered with birchleaf mountain mahogany, Salina wild rye and an occasional pinyon pine or Douglas fir. Two soil pits were dug by hand on the northwest facing slope. The soil in both locations was classified as a loamy-skeletal; mixed; Typic Argiboroll and was correlated to map unit 107, the Curecanti soil in the Order III survey.

The soil contains an A horizon which is approximately 4 inches deep and which has a texture of sandy clay loam. The laboratory analysis of the A horizon clearly indicate it to be superior growing medium with N, P, K, and Zn values that are three times more concentrated than in the B and C horizons. Likewise the concentrations of Fe and Mn are twice as great in the A horizon than the lower horizons.

The B and C horizons had a texture of clay loam. All horizons contained 25 to 30% stones and gravels. Map unit 107 soil is described as a deep soil, but the depth of the soil at Muddy Canyon breakout pit locations could not be determined due to the presence of stones, cobbles and boulders which inhibited further digging below 20 inches.

The permeability of this soil is moderately slow. The soil is well drained. The erosion condition of the survey site was slight. The erosion hazard of the bare surface is high, due to the steep 70% slope (1.5h: 1.0v)

Findings:

The information provided meets the regulatory requirements of this section.

LAND-USE RESOURCE INFORMATION

Regulatory Reference: 30 CFR Sec. 783.22; R645-301-411.

Analysis:

Plate 4-1 shows land uses in the area. The land is managed by the Forest Service for multiple uses, including, timber, grazing, wildlife, and mining. These are the same uses identified as occurring in the current permit area.

Findings:

Information provided in the proposal is considered adequate to meet the requirements of this section of the regulations.

ALLUVIAL VALLEY FLOORS

Regulatory Reference: 30 CFR Sec. 785.19; R645-302-320.

Analysis:

The permittee has provided alluvial valley (AVF) floor characterization in Plate 9-1 and described the potential for flood irrigation of lands in the MRP. Hydrologic resource information has been reviewed concerning the potential for AVFs existing within and down stream of the PTL. Alluvial sediments are sparse and the canyons are narrow within Box Canyon. More sediments and riparian areas are present in Muddy Creek Canyon, however the canyon are still constricted and wide alluvial plains do not exist. AVF do not exist in the since of providing suitable flood or subirrigation within the canyons. AVFs potential exists at the mouth of the large canyons, several miles away from the PTL.

Findings:

The permittee has provided sufficient information to address this section.

PRIME FARMLAND

Regulatory Reference: 30 CFR Sec. 785.16, 823; R645-301-221, -302-270.

Analysis:

The NRCS prime farmland determination is found in Appendix 2.1. No prime farmland exists within or adjacent to the PTL.

Findings:

The information provided meets the regulatory requirements of this section.

GEOLOGIC RESOURCE INFORMATION

Regulatory Reference: 30 CFR Sec. 784.22; R645-301-623, -301-724.

Analysis:

Changes to the text have been made on pages 6-iii, 6-2, 6-4, 6-5, 6-7 through 6-10, and 6-12 of Chapter 6. The changes are minor and generally either clarify statements already in the MRP or expand

statements to include the PTL. Four drill logs have been added to Appendix 6-1 and several analyses of coal and rock have been added to Appendix 6-2; otherwise, there is no new geologic information.

Plates 6-3 and 6-4 (geologic cross-sections B-B' and C-C') have been added to show the nature, depth, and thickness of the coal seam to mined and of overlying and underlying strata. The Upper Hiawatha Seam is the only seam mineable within the permit boundary (p. 6-7). The revised Plate 6-1, Geology and Drillhole Location Map, includes federal lease UTU-76195 within the permit boundary and shows the locations of the two new cross-sections.

There is a plugged and abandoned gas well in the PTL in Sec 23, T. 21 S., R. 5 E.

The permittee states that detailed geologic information is in the R2P2 on file with the BLM. The BLM requested in a letter to UDOGM, dated February 4, 2000 (a similar letter, dated March 13, 2000, was sent to Ken May of SUFCO) that a new R2P2 be prepared for the Pines tract significant revision. SUFCO has prepared a new R2P2 for the Pines Tract Lease.

Findings:

Information on geologic resources is considered adequate to meet the requirements of this section.

HYDROLOGIC RESOURCE INFORMATION

Regulatory Reference: 30 CFR Sec. 701.5, 784.14; R645-100-200, -301-724.

Analysis:

Sampling and analysis.

The permittee had conducted surface and groundwater monitoring surveys via Mayo Associates. Baseline hydrologic information is presented in Sections 7.2.4.1 and 7.2.4.2, and in the Probable Hydrologic Consequences Appendix 7-18. Water monitoring has been conducted on streams, springs, ponds and wells. The operator has presented the results in the Significant Revision (SR) submittal.

Baseline information.

Based on available scientific information and data collected by the permittee's consultants, the permittee has described the geologic and hydrologic setting on the PTL. Baseline information has been collected that identifies the premining features and characteristics of the site. Maps and cross-sections depict the geologic, hydrologic, mining and archeological resources. Literature and maps describe and identify stratigraphy, formation thickness, structural geologic features, mined areas, proposed mined areas, archeological sites, and surface structures.

Ground-water information.

The significant revision references the PHC included in the original MRP for a discussion of groundwater occurrence and recharge. There is general agreement among the studies that the recharge to the saturated zones is principally by snowmelt seeping into outcrops. Groundwater movement is controlled mainly by fractures, dip of the beds (dip is approximately 2 degrees to the northeast) and hydraulic conductivity of the strata. the movement of groundwater is regarded as relatively rapid (USGS). More seeps appear along the eastern edge of the walls consistent with the concept of groundwater following the dip slope.

Mayo and Associates have proposed a hydraulic disconnect between in-mine waters and near-surface groundwater. Mayo is considered a leading authority on isotopic dating of groundwater resources by some managing agencies and mining operators. Studies conducted by his firm have identified the groundwater regimes for several mining operations. Analysis of the groundwater for the PTL is substantiated by tritium analysis and carbon dating which shows the mine waters to be very old (greater than 7,000 to 20,000 years) as compared to meteoric waters that replenish the near surface waters (MAYO and FEIS). "The cause of this disconnect is attributed to shale and mudstones in the Blackhawk Formation that hinder the downward migration of water" (FEIS). Mayo has concluded, "groundwater should not be diverted from the Castlegate Sandstone into the Blackhawk Formation" (FEIS)

Surface-water information.

Surface water sources are identified in the MRP. The permittee has mapped streams, springs and man-made ponds. Most of the stream flow is attributed runoff from snowmelt or rain. Spring flow contributes the most to the baseflow of the streams in later summer and fall months. Streams appear to be unquestionably perennial below the confluence of the tributaries. The low flows that emanate from spring in the upper reaches leave some to question if the streams are not intermittent. The term perennial functioning has been used by the U.S. Forest Service to describe the upper reaches of the East Fork of Box Canyon. The West Fork of the East Fork of Box Canyon is protected from subsidence, however mining has been not been prevented by the U.S. Forest Service on the East Fork of the East Fork.

The permittee has committed to mapping the perennial flows of the Box Canyon Creek in Main Fork, the East Fork of the Main Fork, East Fork and East Fork of the East Fork of Box Canyon. Plate 7-3 identifies the location of monitoring points. The flow data will be compared to local precipitation data to determine what, if any, effects mining has had on the perennial flow. Table 7-2 identifies the water monitoring program and frequency at which monitoring will take place.

The Forest Service submitted comments on March 27, 2000, which identified the need to characterize the functionality of the existing stock watering ponds on the PTL. Pre-mining characterization of the ponds, consisting of drainage area, expected filling frequency and holding capacity, should provide information to determine if impacts occur and to what degree. Also, there are sections of the in Box Canyon drainage which contain flow at different times of the year, but appear to support riparian vegetation. The flow and frequency in these areas should be established to quantify water volumes in the event it should be impacted by subsidence. Specified areas identified on Plate 7-3 will be monitored on or near October 1 of each year to determine any extent of perennial stream flow.

Several stock watering ponds are located on the Pines Tract and Quitchupah Lease Tracts. Surface cracking due to mining related subsidence within the Quitchupah Lease has had impacts on some of the ponds. Action has been taken by SUFCO to mitigate the damage including applying bentonitic clay seals to the pond floors and hauling water in for livestock. SUFCO feels that erroneous claims have been made by ranchers, state and federal agencies.

SUFCO has been negotiating with DOGM, the USFS and local rancher's association to create a workable monitoring plan for the ponds, page 7-45b SUFCO commits to visiting the ponds within the Pines Tract and Quitchupah Lease in early summer of 2000 to photograph the conditions of each year and evaluate the condition of each pond and assess any evidence of cracking, estimate water depth, note soil moisture condition and general condition of the ponds. the land management and riparian habitat, but do not exhibit continuous flows should be characterized to identify their source and overall function.

Perennial flows in Link Canyon is related to the Link Canyon Spring, GW-21 and Link Canyon Mine flow only a couple hundred feet. The canyon is naturally dry, and the surrounding Blackhawk Formation assimilates the low volume spring flow depriving the canyon of any identifiable riparian zone. The extent of the riparian vegetation associated with the spring and workings is included in chapter 3 of the MRP. Secondary mining will not take place under the spring either the spring or abandon mine.

Baseline cumulative impact area information.

The permittee discusses potential impacts in Chapter 7, Page 7-25. has identified the potential subsidence limits, Plate 5-10. Potential impacts are discussed in Appendix 7-18.

Modeling.

Using groundwater chemistry analysis, the recharge to the springs is believed to result primarily from flows in the Castlegate Sandstone as compared to the overlying Price River Formation. This appears to indicate that recharge to the springs in the Box Canyon tributaries is derived primarily from the area 1,000 feet of the canyon rims (FEIS) and (MAYO).

Theoretically, decreased stresses along the canyons allows movement of the blocks in the fractured Castlegate Sandstone to widen creating more storage and conductivity of groundwater. Using Plate 5-2c, the escarpment boundary was used to draw a line 1000 feet in from the canyon rim. This revealed the area of potential recharge. A second chemical analysis suggests that the recharge locations for groundwater in the Castlegate Sandstone are different than the groundwater in the Blackhawk Formation, or that the groundwater recharged under different climatic conditions. This appears to be inconclusive.

Alternative water source information.

The permittee describes water resources and identifies the water rights in Appendix 7-1 and their locations on Plate 7-2.

Probable hydrologic consequences determination.

The probable hydrologic consequences are described in Appendix 7-18. There are two mechanisms where ground and surface water can be adversely impacted, the direct interception of groundwater by opening mine workings and interception or rerouting of surface and groundwater by strata deformation.

Mayo addressed these issues on Pages 47 and 48, Appendix 7-18 he states that groundwater in the Blackhawk Formation is discontinuous and horizons of shales and mudstones and shales. Groundwater from three Blackhawk Formation springs (Pines 204, 206 and 303) were radiocarbon dated between 500 years to 4000 years. The ages of these waters are younger than the water encountered in the mine workings which yield dates between 7500 years to 20,000 years.

As mining progresses toward this area more information pertaining to impacts can be obtained. By extrapolating new information to similar areas on the PTL operational and reclamational predictions can be made. Mining of the upper reach of the West Fork of Box Canyon has revealed how subsidence fractures have developed when mining panels parallel and directly under a canyon. Mapping, measuring and analyzing these fractures over time can provide information on fracture healing, shallow groundwater interception and the effects of subsidence on local vegetation.

Findings:

The permittee has supplied sufficient information to satisfy the requirements of this section.

MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION

Regulatory Reference: 30 CFR Sec. 783.24, 783.25; R645-301-323, -301-411, -301-521, -301-622, -301-722, -301-731.

Analysis:

Affected Area Boundary Maps

Plate 5-5 shows the affected area boundary. Several other maps have been submitted, such as Plate 7-2, which show the topography, mine plan area, the proposed mine layout, structural features, hydrologic, archeological sites and wildlife habitat. Plate 5-10 identifies the extent of expected subsidence. In recognition of the Record of Decision by the USFS the permittee have identified the West Fork of the East Fork of Box Canyon as a non-subsidence area.

Archeological Site Maps

The report on the archaeological resources contains maps showing where these sites are located. The information must remain in the confidential file.

Coal Resource and Geologic Information Maps

Plates 6-3 and 6-4 (geologic cross-sections B-B' and C-C') have been added. The revised Plate 6-1, Geology and Drillhole Location Map, includes federal lease UTU-76195 within the permit boundary

and shows the locations of the two new cross-sections. Detailed geologic information is in the R2P2 on file with the BLM

Revised Plate 5-11 shows overburden isopach thickness for the SUFCO mine area, including the Pines tract. Revised Plate 5-10 shows the limits of anticipated subsidence for the same area.

Plate 5-7 the current MRP shows projected mining through the year 2004, plus outlines of additional longwall panels that are apparently projected for recovery at some time after 2004. Plate 5-7 indicates only about half of the Pines Tract Lease will be mined. In Section 5.2.2, Coal Recovery, the permittee states that mining is not planned for the extreme east and southeast portions of the Pines Tract because of poor coal quality and insufficient seam height for the longwall equipment being used. Coal has also been lost to burn under several areas in the tract. The permittee states that the R2P2 on file with the BLM contains detailed mine plan and reserves calculations.

Existing Structures and Facilities Maps

Archeological sites, dirt roads, fences and runoff ponds and stock watering troughs are the only manmade structures that exist on the PTL (Plate 5-5). The ponds were developed as a watering source for livestock.

Plate 5-5 shows the existing structures and facilities for the permit area. Plate 5-2A is a detailed map of the surface facilities.

Existing Surface Configuration Maps

Plate 5-5 shows the existing surface configuration for the PTL. The Permittee proposes to construct a breakout in the PTL as shown on Plate 5-2C. The drawing does not contain contours or other information about the existing surface configuration. The Permittee must give the Division contour maps of the predisturbed area as outlined in R645-301-521.150.

Plate 5-5 shows the existing surface configuration for the Pines tract. The Permittee shows the Muddy Creek breakout on Page 5-12A of the amendment. The drawing does not show the disturbed area boundaries, or has a scale. The contour map of the Muddy Creek breakout has contour lines at 25 feet intervals. The drawings do not have enough details for the Division to evaluate the proposed breakout. The Permittee must give the Division a map at a scale of 1" = 100' or larger, and contour lines at 5 foot intervals or less. The cross sections must be at the same scales.

Mine Workings Maps

Several maps, including Plate 5-7, Upper Hiawatha Mine Plan, 5 Year Projection, have been revised to show the mining sequence in the PTL. Plate 5-7 shows already shows the that operations are already advancing according to previous approved plans incorporated into the MRP on September 2, 1999 as associated with the 160 acre incidental boundary change. Plate 5-1 shows the previous mine workings.

Monitoring Sampling Location Maps

The permittee has supplied surface and groundwater monitoring location maps. Plate 7-3 identifies spring, stream and well monitoring locations. All sites are accompanied with an elevation identification.

Permit Area Boundary Maps

Several maps have been submitted, such as Plate 7-2, which show the topography, mine plan area, the proposed mine layout, structural features, hydrologic, archeological sites and wildlife habitat. Plate 5-10 identifies the extent of expected subsidence.

Surface and Subsurface Ownership Maps

The permittee has identified the surface and subsurface ownership on Plate 5-6. The surface is USFS managed land the subsurface is federal coal reserves. Plate 5-6 shows the surface and subsurface ownership.

Subsurface and Subsurface Water Resource Maps

Surface and groundwater rights are identified on Plate 7-2. Water has been allocated for stock ponds, springs and streams. The perennial flows in the West and East Forks of Box Canyon as well as the main channel are allocated. Water rights have also been issued on Muddy Creek a receiving stream of Box Canyon.

The permittee has provided a hydrologic monitoring stations map on Plate 7-3 of the SR. All spring found during the baseline studies are presented on Plate 7-3 of the MRP. Additionally, all spring identified in the USGS publication by Thiros and Cordy (1991) were included on the map and labeled with the prefix "GW-". Some problems exist in locating or cross-referencing springs monitored by Mayo and Associates, SUFCO and the USGS monitored springs. This mapping matter is discussed on page 7-38 of the permit modification.

Vegetation Reference Area Maps

The reference area is shown on a map in the current mining and reclamation plan.

Well Maps

Water monitoring wells are located on Plate 7-3.

Contour Maps

Several maps such as Plate 7-2 have incorporated contour intervals on the maps.

Findings:

The Permittee met the minimum requirements of this section.

OPERATION PLAN

OPERATION PLAN

MINING OPERATIONS AND FACILITIES

Regulatory Reference: 30 CFR Sec. 784.2, 784.11; R645-301-231, -301-526, -301-528.

Analysis:

General

The permittee has identified probable hydrologic consequences of mining the PTL, which are described in Appendix 7-18, Probable Hydrologic Consequences. The PHC was incorporated as part of the 160 acre Incidental Boundary Change. The geologic setting controls the flow patterns and quality of surface and groundwater as they come in contact with the mineral constituents of the strata. The SR describes the Castlegate Sandstone which forms the rim and plateau of Box Canyon and Muddy Creek Canyon. The Blackhawk Formation, which contains the coal bearing units, underlies the Castlegate Sandstone. The Blackhawk Formation contains interbedded sequences of sandstones, siltstones, shales, mudstones and coal. The Upper Price River Formation overlies the area to the east of the canyon and some portions of the proposed lease. Several Plates submitted by the permittee show the topographic features of the area.

From past mining experience in areas adjacent to Box Canyon, it can be expected that fractures will develop at the surface, even when overburden height is as great as 800 feet. Recent, fractures along the canyon rim of the West Fork of Box Canyon and past mining under stock pond have shown that the natural joint pattern, which occurs in the area, can promote the effects of surface subsidence. The permittee has presented information that minimizes the effects of subsidence and fracturing. Fracture healing and groundwater flow patterns have been described, however conclusive evidence for fracture healing or mitigation has not been proven.

Information is still being collected and assembled from mining the West Fork of Box Canyon and the 150 acre incidental boundary change. Determination of impacts will not be concluded until the area is mined and hydrologic and subsidence data is analyzed.

The best method to obtain information for future impacts is to monitor impacted areas and try to extrapolate the information to future mine areas. Information is needed to determine if fractures close or heal, groundwater in the Castlegate Sandstone is reestablished after a time period, vegetation is sustained by long-term groundwater sources or by short term surface water sources.

Type and Method of Mining Operations

The permittee proposed to employ the longwall mining method in the PTL. Overburden ranges between 400 feet to a little over 900 feet. Areas where overburden is less than 400 feet will not be mined by the permittee. The U.S. Forest Service has stipulated in the Record of Decision (ROD) that areas under perennial streams will not be mined. In response the permittee has established barriers under perennial sections of the East Fork of Box Canyon which will protect the stream and adjacent areas of the canyon rim from subsidence.

Facilities and Structures

Mining is planned under most existing structures which include archeological sites, dirt roads, fences and runoff ponds and stock watering troughs. The permittee discussed potential impacts to surface structures and hydrologic sources and concluded that adverse impacts will not occur.

The U.S. Forest service has designated two archeological shelter and sites for protection against subsidence. One site, the Elusive Peacock is directly above a barrier established to protect a perennial stream and should not be impacted. The Refugia/Grotto site is located near a barrier wall separating the PTL from the Quitchupah Lease. This site contains a perennial pond at the base of the cliff which is the supply source of riparian habitat in the vicinity and downstream of the shelter. The permittee has planned to provide protection to the site from subsidence. The longwall panels in the PTL had to be realigned. The panels have been shifted at an angle to get the Refugia/Grotto area out of the nagle of draw. With the new alignment of the panels the site will not fall within the influence of the 15 degree angle of draw and impact zone.

The Forest Service has indicated that some stock water monitoring ponds in the region have been impacted by surface fracturing when undermined, while others have not. Rock pond and Johnson Pond in the Quitchupah Lease leak as a result of undermining and subsidence. These ponds are supplied by ephemeral runoff. Grouting of the pond has been conducted, however after heavy rainstorms personnel from the USFS witnessed that the ponds were no holding water. The permittee anticipates that eventually sediment will fill any fractures that have developed to drain the pond and their use will be restored. It is not possible to predict the extent or duration of impacts. The permittee has also proposed mitigation plans to repair any damage.

Findings:

Information provided in the proposal is adequate to meet the requirements of this section of the regulations.

PROTECTION OF PUBLIC PARKS AND HISTORIC PLACES

Regulatory Reference: R645-301-140

Analysis:

Three of the significant or potentially significant cultural resource sites are in the subsidence area shown on Plate 5-10A. These are 42SV 2425, 42SV 2433, and 42SV 2434. Site 42SV 2425 is a lithic scatter, and the other sites are rock shelters that could be adversely affected.

The application says the monitoring, treatment plans, and mitigation of the cultural resource sites will be in accordance with the memorandum of agreement (MOA) between the Forest Service, SHPO, the Division, and the permittee. The permittee and the Division have signed this agreement, and the Forest Service and SHPO are expected to sign it. As soon as this agreement is signed, SHPO should be able to give its concurrence to the proposal. The permittee has committed in the application to follow the terms of this agreement.

OPERATION PLAN

Findings:

Information provided in the proposal is considered adequate to meet the requirements of this section of the regulations. The Division has taken into account the effect of the proposed permitting action on properties listed on and eligible for listing in the National Register of Historic Places, and the permittee has committed to adequately mitigate for potential damage to these sites.

EXISTING STRUCTURES:

Regulatory Reference: 30 CFR Sec. 784.12; R645-301-526.

Analysis:

Mining is planned under most existing structures which include archeological sites, dirt roads, fences and runoff ponds and stock watering troughs. The permittee discussed potential impacts to surface structures and hydrologic sources and concluded that adverse impacts will not occur.

The U.S. Forest service has designated two archeological shelter and sites for protection against subsidence. One site, the Elusive Peacock is directly above a barrier established to protect a perennial stream and should not be impacted. The Refugia/Grotto site is located near a barrier wall separating the PTL from the Quitchupah Lease. This site contains a perennial pond at the base of the cliff which is the supply source of riparian habitat in the vicinity and downstream of the shelter. The site appears to fall within the angle of draw of subsidence.

Some stock water monitoring ponds in the region have been impacted by surface fracturing when undermined, while others have not. Rock pond and Johnson Pond in the Quitchupah Lease leak as a result of undermining and subsidence. These ponds are supplied by ephemeral runoff. Grouting of the pond has been conducted, however after heavy rainstorms personnel from the USFS witnessed that the ponds were not holding water. The permittee anticipates that eventually sediment will fill any fractures that have developed to drain the pond and their use will be restored. It is not possible to predict the extent or duration of impacts. The permittee has also proposed mitigation plans to repair any damage.

Findings:

Information provided in the proposal is adequate to meet the requirements of this section of the regulations.

RELOCATION OR USE OF PUBLIC ROADS

Regulatory Reference: 30 CFR Sec. 784.18; R645-301-521, -301-526.

Analysis:

The Permittee does not propose to relocate or use a public road in connection with the PTL.

Findings:

The Permittee met the minimum requirements of this section.

AIR POLLUTION CONTROL PLAN

Regulatory Reference: 30 CFR Sec. 784.26, 817.95; R645-301-244.

Analysis:

The permittee has proposed no activities that should require changes to the Air Quality Approval Order, so no changes are needed to this section of the mining and reclamation plan.

Findings:

Information provided in the proposal is adequate to meet the requirements of this section of the regulations.

COAL RECOVERY

Regulatory Reference: 30 CFR Sec. 817.59; R645-301-522.

Analysis:

The Division reviewed the R2P2 and found the coal recovery plan to be adequate.

Findings:

The Permittee met the minimum requirements of this section.

SUBSIDENCE CONTROL PLAN

Regulatory Reference: 30 CFR Sec. 784.20, 817.121, 817.122; R645-301-521, -301-525, -301-724.

Analysis:

Renewable resources survey.

The Permittee identified the renewable resources on Plate 4-1A and Plate 4-1B. Those plates have scales of 1" = 1,000' (1 to 12,000).

OPERATION PLAN

Subsidence control plan.

1. The Permittee proposes to use longwall and room-and-pillar mining methods to extract the coal. The Permittee shows the mine layout on Plate 5-2C.
2. Plate 5-10B shows the underground working. The Permittee states on that plate the methods will be used to prevent subsidence. First mining only and no extraction areas are the methods used to control subsidence.
3. The general subsidence control plan in the MRP was determined adequate for the existing permit. The proposed changes to the plan are shown on Plate 5-10B. On that plate the Permittee shows the areas that will be protected from subsidence and the limits of surface disturbance. Table 5-2 has been updated to show the new subsidence monitoring stations.
4. The permittee has committed to protect cultural sites and perennial stream, p 5-21, from the effects of subsidence caused by underground full extraction mining. The width of the corridors will be established multiplying the depth of the the coal seam by $\tan 15\%$ to obtain the distance underground mining needs to be away from the area. An additional 25 feet will be added to the distance to account for minor irregularities in the course of the stream or cultural resource sites.
5. Two items in the PTL must be protected from subsidence impacts. The first is the Refugia/Grotto, an archeologic site, and the second is the perennial stream, the West Fork of the East Fork of Box Canyon. The Refugia/Grotto consists of a 50-foot cliff with a perennial pond at the bottom, a rock shelter and artifacts.
6. The Permittee states in the MRP that no subsidence damage should occur. If damage occurred, they would mitigate the damage. The Permittee has caused some damage to stock watering ponds and has repaired the damage. The Division anticipates that subsidence damage would be limited to surface cracks.
7. The Permittee committed to repair any subsidence damage that should occur.
8. No significant surface resources are in the area that needs protection.

Performance standards for subsidence control.

The Permittee committed to meet all subsidence performance standards.

Findings:

The Permittee met the minimum requirements of this section.

SLIDES AND OTHER DAMAGE

Analysis:

The existing plan is considered adequate.

Findings:

The Permittee met the minimum requirements of this section.

FISH AND WILDLIFE INFORMATION

Regulatory Reference: 30 CFR Sec. 784.21, 817.97; R645-301-322, -301-333, -301-342, -301-358.

Analysis:

Protection and enhancement plan.

The existing mining and reclamation plan contains commitments to protect wildlife from the adverse effects associated with mining. Underground mining is likely to have little if any effect on most species on the plateau, including deer, elk, and sage grouse.

Endangered and Threatened Species and Bald and Golden Eagles

The Environmental Impact Statement for the Pines Tract lists eighteen threatened and endangered species that could occur in the project area. The only species that might be affected are the southwestern willow flycatcher and the four threatened and endangered fish of the upper Colorado River basin. However, as discussed in the fish and wildlife resource information section of this analysis, there is no suitable habitat for the southwestern willow flycatcher in the area.

The Fish and Wildlife Service has determined that water losses from the upper Colorado River basin jeopardize the continued existence of the four threatened and endangered fish species found there. Mitigation is required when losses exceed 100 acre-feet per year. The mine is not expected to use additional water because of the increase in the size of the permit area, but there could potentially be some disruption of groundwater flows. The amount of loss is expected to be nonexistent or minor, and the environmental impact statement concludes "the effects of the proposed small water withdrawals are so limited in scope and intensity and are so far-removed from the remaining populations of [the listed fish] species that they are negligible." For these reasons, the Division does not expect mitigation to be required.

On April 26, 2000, the Division received a letter from the Fish and Wildlife Service concurring with the Division's findings on threatened and endangered species.

Four eagle nests and one falcon scrape shown on Plate 3-3 are in the subsidence area shown on Plate 5-10. The current mining and reclamation plan says in Section 3.3.3.3 that any raptor nest that might be disturbed by subsidence will be evaluated by Wildlife Resources and the Fish and Wildlife Service. An appropriate plan of action will be developed on a case by case basis, and the permittee will obtain any permits necessary for disturbing the nest if this becomes necessary. The Division of Oil, Gas and Mining will be notified in advance. This plan is acceptable.

OPERATION PLAN

A golden eagle nest and a falcon scrape are on the north side of Muddy Canyon apparently in full view of the proposed breakout. They are about 3/4 mile from the breakout, and this is outside the buffer zone normally used for golden eagles. The application says if the scrape is still active at the time of construction, the breakout will be built outside the nesting period. This commitment is acceptable.

The Fish and Wildlife Information section of this analysis discusses potential effects of mining on the Link Trail columbine and monitoring requirements.

Three-toed woodpeckers, goshawks, and flammulated owls use Ponderosa pines and other tree species for roosting and nesting in and near the area; however, it is unlikely trees would be affected by underground mining. The EIS concluded that individuals of these species could possibly be affected but that there would be no significant effects to the populations or to the species.

The mining and reclamation plan contains a survey for bats in the Link Canyon and Muddy Creek areas. The consultants that did this survey suggested that subsidence could affect roosting areas and that some individuals could be lost; however, they felt new cracks would offset the ones destroyed and that there would be little net effect. They believe there could be some impact on local populations of spotted bats. The report says if subsidence occurred in spring and summer it might cause reproductive females to carry young to another less favorable roost site. In the winter, torpid bats might not have time to arouse and escape during subsidence.

Subsidence could occur in these areas as a general lowering of the topography or it could cause sudden failure of some rock features. Bats would likely either be unaffected or would not have time to fly away to escape subsidence.

From the information in the report, the Division draws the following conclusions about bats:

- There are bats, including spotted bats, present in the general area although spotted bats may not be present in the upper part of Box Canyon.
- There are no known hibernacula, maternal roosting sites, or other areas of heavy concentration in the area that would be subsided.
- Cracks in rocks being used by bats could fail and kill or trap any animals using them, but since there are no known concentration areas, it is unlikely this would seriously reduce the local population. Generally, rock crevices and defective trees are used by only a few bats rather than large populations.
- It is possible that new habitat could be created, but this is also unlikely.

For these reasons, there should be no need to mitigate possible effects on bats or to do further monitoring.

Findings:

Information provided in the proposal is adequate to meet the requirements of this section of the regulations. The Division finds the proposal will not adversely affect any threatened or endangered species, and the Fish and Wildlife Service has concurred with this conclusion.

TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-230.

Analysis:

The area to be disturbed by the breakout is approximately 20 feet square, less than 0.01 acre. The location is on a very steep slope (70%). The plan for topsoil salvage is to collect what falls into the breakout, separate it from the coal and store it within the mine tunnel. Space will be made for approximately 25 CY of soil (enough to replace 20 inches of soil over the disturbance).

Findings:

The soil survey indicates that there is a four inch A horizon which is clearly superior in texture and fertility to the soil below. The 400 square foot area would yield about 4 yards of topsoil. However, the logistics of soil salvage from the small area on a steep and remote slope makes the removal of the topsoil impractical. The operation plan is permissible under R645-301-232.710.

VEGETATION

Regulatory Reference: R645-301-330, -301-331, -301-332.

Analysis:

Chapter 3 of the current mining and reclamation plan contains a plan for interim revegetation that is adequate for the proposed breakout.

Findings:

Information provided in the proposal is adequate to meet the requirements of this section of the regulations.

ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES

Regulatory Reference: 30 CFR Sec. 784.24, 817.150, 817.151; R645-301-521, -301-527, -301-534, -301-732.

Analysis:

Road Systems

The Permittee does not propose any changes to the road systems

Other Transportation Facilities

The Permittee does not propose any changes to the other transportation facilities.

OPERATION PLAN

Findings:

The Permittee met the minimum requirements of this section.

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

Analysis:

Ground-water monitoring.

Longwall mining is planned for the Pines Tract Lease. The panel alignment trends north-south. Subsidence is expected in the PTL from 1 to 8 feet along the midline of the panels, and subsidence cracks are expected to occur. AGAPITO estimates that fractures of 1 to 4 inches can occur in the canyons and fractures up to 2 feet can take place on the canyon rim where panels are parallel the canyon.

Several springs are located in the canyon and at its confluence with the West Fork of Box Canyon. There are also several springs in the main channel of Box Canyon, which eventually drain into Muddy Creek. The upper reaches of the East Fork of Box Canyon are what the USFS term a perennially functioning stream, Page 3-61, FEIS, Page 7, ROD. Carter Reed, USFS, Geologist defined the upper reaches as flows on the surface and in the alluvial system, which contributes to the base flow of the down-stream system and supports riparian vegetation, Personal Communication, January 13, 2000. The canyons exhibit perennial flows near the confluence of the East Fork tributaries, shown on Figures 3, 7, 8 and 9 of the PTL P.C., Appendix 7-18. The permittee proposes a groundwater monitoring program which includes springs and wells. The groundwater monitoring plan is identified in Table 7-2 of the SR.

An area has been identified during the review that has a potential being impacted during mining. The information presented by the permittee and research reports presents a scenario where subsidence fractures could develop along canyon rims, and in one canyon, the East Fork of the East Fork of Box Canyon, which is planned to be undermined. This canyon is also considered perennially functioning. The propagation of cracks may influence the flow pattern within the recharge zone (1000 feet in from the rim of the canyons) identified by Mayo. The seep and spring flow in this canyon is minor in comparison to the watershed, but significant to the riparian resource. It has been proposed that flows will be reestablish in time as the voids fill with groundwater or sediment to reach the original levels. The permittee plans to monitor point GW-20 the flume in the main fork of Box Canyon. The stream becomes perennial at this point.

The permittee has committed to conduct bi-annual (operational) fracture monitoring study to analyze the fractures that have developed in the upper reaches of the West Fork of Box Canyon. The permittee shall develop a monitoring plan to survey perennial flows in the channel of the East Fork of the East Fork of Box Canyon. This should be conducted on an annual basis during the months of September or October.

Surface-water monitoring.

The upper reaches of the tributaries contain springs of low flow which are perennial, but do not supply continuous flow to the stream channels. The upper reaches of the East Fork are shown be lined with riparian habitat in the PHC, Figure 3 and the FEIS, Figure 3-11. This area is identified as perennially functioning according the Page 7, of the PTL Record of Decision. Although identified as containing riparian habitat, the East Fork of the East Fork of Box Canyon does not have the same designation of protection as the West Fork of the East Fork of Box Canyon. The perennial springs in the upper reaches of the canyon do not sustain a constant or perennial flow in the channel. The Record of Decision for the FEIS allows the development and longwall panels under the channel.

The permittee has submitted information to address surface water monitoring sites in the text of the MRP and on Plate 7-3. The permittee recommends monitoring seven stream locations in Table 5 of the P.C. These locations include Pines 106, Pines 108, Pines 403, Pines 405, 406, Pines 407, Pines 408 and USFS-109.

Although identified as containing riparian habitat, the East Fork of the East Fork of Box Canyon does not have the same designation of protection as the West Fork of the East Fork of Box Canyon in the FEIS. The perennial springs in the upper reaches of the canyon do not sustain a constant or perennial flow in the channel. The USFS allowed the development and longwall panels under the channel. The USFS has asked the permittee to quantify the riparian and spring resources to determine the extent of any impacts.

In a meeting between the Division and SUFCO on February 25, 2000, SUFCO personnel reaffirmed their position that the East Fork of the East Fork of Box Canyon is not a perennial stream, that it flows during spring runoff and after periods of substantial rainfall. SUFCO contests the Division's claim that the channel should be monitored during September or October to determine if the upper stream channels in the East Fork of the East Fork of Box Canyon contain base streamflows. SUFCO contends that no studies show the stream to be perennial, supply contrasting information from the FEIS, January 1999; a report by Mayo and associates, July 12, 1999; Ayres Associate Report, November 1998 and from SUFCO, observation descriptions while collecting baseline information during quarterly surveys.

Acid and toxic-forming materials.

Information on acid and toxic forming materials is presented in Chapter 6 of the MRP and on page 53 of the P.C. Sulfide mineral pyrite has been identified in SUFCO Mine. Although pyrite oxidation does occur acid mine drainage does not. Alkalinity of mine drainage water typically exceeds acidity by a factor of 20. The permittee claims that no acid-forming materials or any toxic forming materials have been identified or are suspected to exist in materials disturbed in the PTL.

Transfer of wells.

Transfer of wells is not currently considered. Any future transfers will be in accordance with DOGM approval.

OPERATION PLAN

Discharges into an underground mine.

There are no planned discharges into underground mines for the PTL. Only on breakout is planned for the PTL which is down-dip in Muddy Creek Canyon.

Gravity discharges.

It is anticipated that in-mine water will be generated from mining the PTL. There are no gravity discharges currently planned from the PTL. Intercepted groundwater will be used in the mining process and excess water will be pumped from the mine to the Quitchupah Creek UPDES mine discharge site. The mine is currently discharging approximately 1500 gallons per minute from the Quitchupah Lease into Quitchupah Creek.

Water quality standards and effluent limitations.

The permittee plans to maintain water quality standards by employing sediment control structures on disturbed areas and settling in-mine waters prior to their discharge.

Stream buffer zones.

The permittee has implemented stream buffer zones along perennial reaches that have been designated perennial or have an overburden height of less than 400 feet.

Sediment control measures.

The permittee proposes to construct a breakout for mine ventilation. The disturbed will be small, approximately .01 acres. The area is very steep and no major hydrologic structures will be needed. The permittee plans to handle runoff control by placing silt fences below the disturbed area to trap and contain sediments.

Impoundments.

The Permittee does not propose any changes to the existing impoundments or construction of a new one. The Forest Service has identified a need to evaluate the stock water ponds for functionality, that is to identify the current physical characteristics of the ponds to determine holding capacity.

Casing and sealing of wells.

The permittee has submitted plans in the approved MRP to case and seal all monitoring wells in accordance with their reclamation timetable. The Permittee does not propose any changes in way wells are sealed.

Findings:

The permittee has submitted sufficient information to address this section.

SUPPORT FACILITIES AND UTILITY INSTALLATIONS

Regulatory Reference: 30 CFR Sec. 784.30, 817.180, 817.181; R645-301-526.

Analysis:

The Permittee does not propose any changes.

Findings:

The Permittee met the minimum requirements of this section.

MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-512, -301-521, -301-542, -301-632, -301-731, -302-323.

Analysis:

Affected area maps.

The Permittee did not provide affected area map. However, the mine map shows the extent of mining operations and the permit boundaries. The Division considers that map sufficient.

Mining facilities maps.

Plate 5-12B shows the operational contours of the Muddy Creek portal area.

Mine workings maps.

In a meeting with the BLM on January 22, 2000, Stan Perks mentioned that the new R2P2 showing the mine working has changed from the copy submitted with the SR. Mike Davis also mentioned changes in panel widths that are planned for the Pines Tract panels during a Link Canyon meeting on January 27, 2000.

Plate 5-10A and Plate 5-10B show the mine workings, including updates for the Pines Track lease.

Plate 5-10A and Plate 5-10B show the mine workings, including updates for the Pines Track lease.

OPERATION PLAN

Monitoring and sample location maps.

The permittee has submitted Plate 7-3 identifying the location of surface and groundwater monitoring locations.

Findings:

The permittee has submitted sufficient information to address this section

RECLAMATION PLAN

GENERAL REQUIREMENTS

Regulatory Reference: PL 95-87 Sec. 515 and 516; 30 CFR Sec. 784.13, 784.14, 784.15, 784.16, 784.17, 784.18, 784.19, 784.20, 784.21, 784.22, 784.23, 784.24, 784.25, 784.26; R645-301-231, -301-233, -301-322, -301-323, -301-331, -301-333, -301-341, -301-342, -301-411, -301-412, -301-422, -301-512, -301-513, -301-521, -301-522, -301-525, -301-526, -301-527, -301-528, -301-529, -301-531, -301-533, -301-534, -301-536, -301-537, -301-542, -301-623, -301-624, -301-625, -301-626, -301-631, -301-632, -301-731, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-732, -301-733, -301-746, -301-764, -301-830.

Analysis:

The permittee has provided a reclamation plan in the MRP, page 7-48. Since only a the breakout is proposed for surface disturbance, surface reclamation of the PTL is relatively small. Any surface disturbance from subsidence or affects to the hydrologic system on the PTL would be covered in mitigation during the operation phase.

Findings:

The permittee has submitted sufficient information for this section

POSTMINING LAND USES

Regulatory Reference: 30 CFR Sec. 784.15, 784.200, 785.16, 817.133; R645-301-412, -301-413, -301-414, -302-270, -302-271, -302-272, -302-273, -302-274, -302-275.

Analysis:

The permittee has proposed no changes to the postmining land uses of wildlife habitat and grazing.

Findings:

Information provided in the proposal is adequate to meet the requirements of this section of the regulations.

PROTECTION OF FISH, WILDLIFE, AND RELATED ENVIRONMENTAL VALUES

Regulatory Reference: 30 CFR Sec. 817.97; R645-301-333, -301-342, -301-358.

RECLAMATION PLAN

Analysis:

The revegetation plan in the current mining and reclamation plan is designed for the wildlife and grazing postmining land uses. It complies with regulatory requirements.

Findings:

Information provided in the proposal is adequate to meet the requirements of this section of the regulations.

APPROXIMATE ORIGINAL CONTOUR RESTORATION

Regulatory Reference: 30 CFR Sec. 784.15, 785.16, 817.102, 817.107, 817.133; R645-301-234, -301-270, -301-271, -301-412, -301-413, -301-512, -301-531, -301-533, -301-553, -301-536, -301-542, -301-731, -301-732, -301-733, -301-764.

Analysis:

The Permittee stated that the information on AOC for the Muddy Creek breakout is on Figure 5-0.

Findings:

The Permittee met the minimum requirements of this section.

BACKFILLING AND GRADING

Regulatory Reference: 30 CFR Sec. 785.15, 817.102, 817.107; R645-301-233, -301-537, -301-552, -301-553, -302-230, -302-231, -302-232, -302-233.

Analysis:

Plate 5-12C show the reclaimed contours for the Muddy Creek portal area.

Findings:

The Permittee met the minimum requirements of this section.

MINE OPENINGS

Regulatory Reference: 30 CFR Sec. 817.13, 817.14, 817.15; R645-301-513, -301-529, -301-551, -301-631, -301-748, -301-765, -301-748.

Analysis:

The Permittee designed the seal for the Muddy Creek portal to with stand the water pressure that will develop as the mine fills with water.

Findings:

The Permittee met the minimum requirements of this section.

TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-240.

Analysis:

Stored soil from within the mine will be brought to the surface and temporarily stored on the slope while the portal is backfilled from within the mine. Then, the soil will be spread over the surface. This will be accomplished using mining equipment and hand labor. The surface will be left roughened and gouged by hand using rakes and shovels.

Findings:

The information provided meets the regulatory requirements of this section.

ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES

Regulatory Reference: 30 CFR Sec. 701.5, 784.24, 817.150, 817.151; R645-100-200, -301-513, -301-521, -301-527, -301-534, -301-537, -301-732.

Analysis:

There are no rads associated with the PTL.

Findings:

The Permittee met the minimum requirements of this section.

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 784.14, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-301-512, -301-513, -301-514, -301-515, -301-532, -301-533, -301-542, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-733, -301-742, -301-743, -301-750, -301-751, -301-760, -301-761.

Analysis:

Surface and Groundwater monitoring.

The permittee has identified a surface and ground water monitoring plan outlined in Tables 7-2 and 7-3. Additional sites have been requested to be monitored by the U. S. Forest Service. Although a monitoring plan has been established and the permittee should identify the period of monitoring which includes a time table when monitoring will cease.

RECLAMATION PLAN

Acid and toxic-forming materials.

Iron-sulfide is present in the mine capable of forming acids. The buffering capacity of carbonates in surrounding rock and continuous flow of groundwater flow prevent concentrated acid build-up.

Discharges into an underground mine.

The permittee plans no discharge of fluids or materials into the mine.

Gravity discharges.

The permittee describes the process for discharging intercepted groundwater. Currently all intercepted in the mine is discharged to Quitchupah Creek via a UPDES permit. The mine currently discharges approximately 1000 gpm or 2.25 cfs from the Quitchupah portal. As mining progresses into the PTL the intercepted groundwater will also be discharged to Quitchupah Creek. The Muddy Creek portal proposed in the mine plan is down dip of the mine. Sealing the portal will cause groundwater to back up behind the seals and could seep from the mine.

Current plans are to seal the breakout, this will cause groundwater to back up behind the seals and could seep from the mine. SUFCO has submitted plans which show the designs for a cast in place, MSHA approved seal. The seal could be subjected to a maximum hydrostatic pressure of 69 psi if the mine were completely filled up with water to the highest elevation point in the mine. This hydrostatic pressure will be designed into the seal design when constructed.. The MSHA seal will be installed with a minimum thickness of 3 feet and with a minimum compressive strength of 200 psi.

Sedimentation ponds.

There are no sediment ponds associated with the PTL.

Impoundments.

There are no impoundments associated with the PTL.

Casing and sealing of wells.

When no longer needed for monitoring or other use designated by UDOGM and upon a finding of no adverse environmental or health and safety effects, or unless approved for transfer as a water well, each well will be capped, sealed, backfilled. Wells will be sealed and backfilled by placing a concrete plug from TD to surface.

Findings:

The permittee has submitted sufficient information to address this section.

CONTEMPORANEOUS RECLAMATION

Regulatory Reference: 30 CFR Sec. 785.18, 817.100; R645-301-352, -301-553, -302-280, -302-281, -302-282, -302-283, -302-284.

Analysis:

No contemporaneous reclamation is schedule to take place on the PTL. The breakout portal will be recovered after the mine shuts down.

Findings:

The Permittee met the minimum requirements of this section.

REVEGETATION

Regulatory Reference: 30 CFR Sec. 785.18, 817.111, 817.113, 817.114, 817.116; R645-301-244, -301-353, -301-354, -301-355, -301-356, -302-280, -302-281, -302-282, -302-283, -302-284.

Analysis:

The revegetation plan includes specific mention of the remote portals. These portals would be broadcast seeded with the standard seed mix. Reclaimed slopes in the area of the Muddy Creek Breakout will be protected from erosion by the application of an erosion mat stapled in place. This plan is acceptable.

Findings:

Information provided in the proposal is adequate to meet the requirements of this section of the regulations.

STABILIZATION OF SURFACE AREAS

Regulatory Reference: 30 CFR Sec. 817.95; R645-301-244.

Analysis:

During operations, soil will be stored within the mine where it will be sheltered from wind and water.

During reclamation, the soil surface will be left rough. The breakout will be hand seeded with the seed mix listed in section 3.4.1.2 of the MRP. Section 3.4.1.2 further indicates that mulch will be applied at 2000 lbs/acre along with 100 lbs of N/ac and 100 lbs of P/ac. Section 2.4.2.1. indicates that organic matting may be used if the slope is thought to be unstable.

RECLAMATION PLAN

The information provided meets the regulatory requirements of this section.

CESSATION OF OPERATIONS

Regulatory Reference: 30 CFR Sec. 817.131, 817.132; R645-301-515, -301-541.

Analysis:

The Permittee addressed this in the MRP. If the Permittee were to cease operations, they would notify the Division within 30 days. The Permittee would report the number of surface and underground acres disturbed and the monitoring procedures during temporary cessation.

Findings:

The Permittee met the minimum requirements of this section.

MAPS, PLANS, AND CROSS SECTIONS OF RECLAMATION OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-323, -301-512, -301-521, -301-542, -301-632, -301-731.

Analysis:

The surface disturbance should be limited to reclamation of the breakout area which covers an area of 0.01 acres.

Affected area boundary maps.

The permit area maps and the mine maps show the affected area boundaries.

Bonded area map.

The bonded area is the permit area and is shown on several maps.

Reclamation backfilling and grading maps.

The Permittee did not provide the Division with backfilling and grading maps for the portal breakout areas.

Reclamation facilities maps.

The Permittee does not propose to leave any facilities associated with the PTL.

Final surface configuration maps.

The Permittee did give the Division the final surface configuration maps for the breakout portal area.

Findings:

The Permittee met the minimum requirements of this section.

BONDING AND INSURANCE REQUIREMENTS

Regulatory Reference: 30 CFR Sec. 800; R645-301-800, et seq.

Analysis:

Determination of bond amount.

The Permittee provided detailed information for the reclamation costs of the breakout portal. The Divisions reviewed the bond calculation and determined that an adjustment was not needed at this time. The Division included the cost to reclaim the Muddy Creek portal area into the bond calculations. When the reclamation costs exceed the bond by 5%, the Division will adjust the bond amount.

Findings:

The Permittee met the minimum requirements of this section.

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- RULES INDEX -

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State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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November 23, 1999

Ranvir Singh
Office of Surface Mining
Denver Field Division
1999 Broadway, Suite 3320
Denver, Colorado 80202

*Matching list
attached*

Re: Determination of Administrative Completeness for Pines Tract Lease (Significant Revision), Canyon Fuel Company, LLC, SUFCO Mine, ACT/041/002-SR99D, File #2, Sevier County, Utah

Dear Mr. Singh:

The Division has determined that the permit application for the Significant Revision to the SUFCO Mine (Pines Tract) has been determined to be administratively complete. In compliance with the Utah Coal Mining Rules R645-300-121.300, R645-300-121.310, R645-300-121.320, and the Utah Coal Mining Act (UCA Section 40-10-1 et seq.), notice is hereby given to all appropriate agencies having a jurisdiction or an interest in the area of the operations that this application is available for public review.

The proposed additional permit area is located in Sevier and Emery County. The legal description is:

Federal Coal Lease UTU-76195 - (7,171.66 acres)

T. 20 S., R. 5 E., SLM

Sec. 35, S1/2NE1/4, SE1/4NW1/4, NE1/4SW1/4, S1/2SW1/4, SE1/4

Sec. 36, W1/2SW1/4, SE1/4SW1/4

T. 21 S., R. 5 E., SLM

Sec. 1, lots 3-4, S1/2SW1/4, SW1/4 SE1/4

Sec. 2, lots 1-4, S1/2S1/2

Sec. 3, lots 1-2, S1/2SE1/4

Sec. 10, E1/2

Sec. 11-14 all

Sec. 15, E1/2

Sec. 22, E1/2

Sec. 23-24, all

Sec. 25, N1/2, N1/2S1/2

Sec. 26, N1/2, NE1/4SW1/4, E1/2NW1/4SW1/4, SE1/4

T. 21 S., R. 6 E., SLM

Sec. 19, lots 3-4, E1/2SW1/4

Sec. 30, lots 1-3, E1/2NW1/4, NE1/4SW1/4

This significant revision application is available for public review at:

Coal Regulatory Program
Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84114-5801

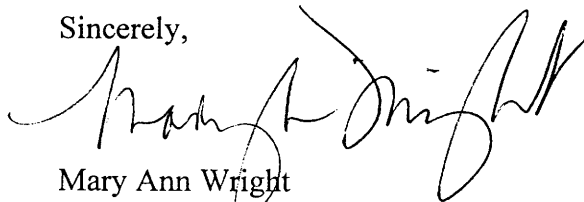
Sevier County Courthouse
250 North Main
Richfield, Utah 84701

Please send your comments by January 3, 2000 to:

Coal Regulatory Program
Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

If you have any questions, please call me or Daron R. Haddock.

Sincerely,



Mary Ann Wright
Associate Director, Mining

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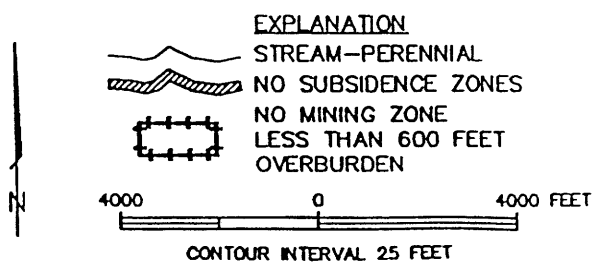
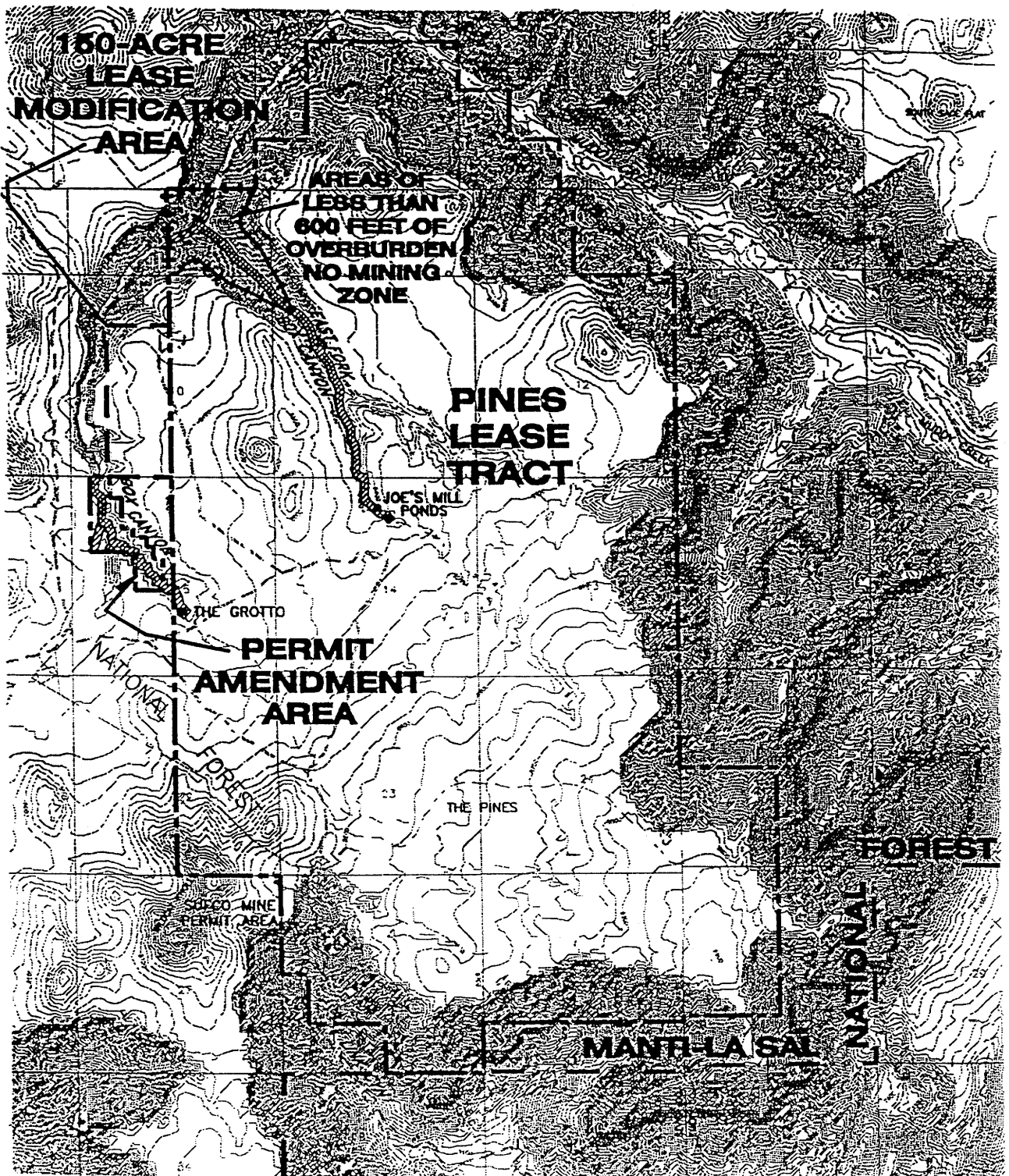
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VARDEN WILLSON SECRETARY
HUNTINGTON-CLEVELAND IRR CO
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HUNTINGTON UT 84528



MANTI-LA SAL NATIONAL FOREST PINES TRACT PROJECT

FIGURE 1
RECORD OF DECISION

SCALE 1"=4000'

DATE
DRAWN 8/14/98

LAST
REVISION 1/21/99



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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November 10, 1999

Kenneth E. May, General Manager
Canyon Fuel Company, LLC
SUFCO Mine
397 South 8th West
Salina, Utah 84564

Re: Determination of Administrative Completeness for Adding Pines Tract Lease, Canyon Fuel Company, LLC., SUFCO Mine, ACT/041/002-SR99D, Folder #3, Carbon County, Utah

Dear Mr. May:

The Division has completed a review of the additional information you submitted dated October 13, 1999, which amended the SUFCO Mine Application to add the Pines lease tract. With this additional information your application is now considered to be administratively complete. A copy of our review worksheet is enclosed for your information and records.

A technical review of your plan has been initiated. Technical deficiencies will be forwarded to you as reviews are completed. The Division will also coordinate with other agencies and incorporate their comments into our review process. Issues raised will need to be resolved prior to permit issuance.

At this time you should publish a Notice of Complete Application for adding the Pines lease to the SUFCO mine as required by R645-300-121. A copy of the publication should be sent to the Division as soon as it is available. You should also insure that a copy of the application is on file at the appropriate County Courthouse. The Division will complete a technical analysis which must find that your application is technically complete. We anticipate that additional information may be necessary to make your application technically complete and look forward to working with you throughout the permitting process. Please call if you have any questions.

Thank you for your help in the permitting process.

Sincerely,

Daron R. Haddock
Permit Supervisor

enclosure

cc: Richard Pick, Canyon Fuel, SLC
Mike Davis, Canyon Fuel, Salina
Chris Hansen, Canyon Fuel, Scofield
Price Field Office

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AFFIDAVIT OF PUBLICATION

STATE OF UTAH)

SS.

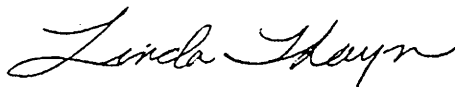
County of Emery,)

I, Kevin Ashby, on oath, say that I am the Publisher of the Emery County Progress, a weekly newspaper of general circulation, published at Castle Dale, State and County aforesaid, and that a certain notice, a true copy of which is hereto attached, was published in the full issue of such newspaper for 4 (Four) consecutive issues, and that the first publication was on the 23rd day of November, 1999 and that the last publication of such notice was in the issue of such newspaper dated the 14th day of December, 1999.



Kevin Ashby - Publisher

Subscribed and sworn to before me this 14th day of December, 1999.



Notary Public My commission expires January 10, 2003 Residing at Price, Utah

Publication fee, \$ 239.60

LEGAL NOTICE

Canyon Fuel Company LLC, 6955 South Union Park Center, Suite 540, Midvale, Utah 84047 has filed an application to revise its coal mining permit to add the Pines Lease to the existing SUFCO Mine under the laws of the State of Utah and the U.S. Office of Surface Mining.

Approval of this application will allow coal mining operations to extend into the Pines Lease from the existing SUFCO Mine owned by Canyon Fuel Company LLC. The lands on which mining is to occur are located in Sevier and Emery County and include parts of the Manti-LaSal National Forest. Mining will be done using underground methods from the existing SUFCO Mine. The only surface disturbance will be a single escapeway and intake breakout portal located in Muddy Canyon.

The approximately 7,171.66 acre Pines Lease to be added involves the following coal lease which has been assigned or deeded to Canyon Fuel Company LLC.

Federal Coal Lease UTU-79195 - (7,171.66 acres) - Approved 1999

T. 20 S., R. 5 E., SLM

Sec. 35, S1/2NE1/4, SE1/4NW1/4, NE1/4SW1/4, S1/2SW1/4, SE1/4

Sec. 36, W1/2SW1/4, SE1/4SW1/4

T. 21 S., R. 5 E., SLM

Sec. 1, lots 3-4, S1/2SW1/4, SW1/4 SE1/4

Sec. 2, lots 1-4, S1/2S1/2

Sec. 3, lots 1-2, S1/2SE1/4

Sec. 10, E1/2

Sec. 11-14 all

Sec. 15, E1/2

Sec. 22, E1/2

Sec. 23-24, all

Sec. 25, N1/2, N1/2S1/2

Sec. 26, N1/2, NE1/4SW1/4, E1/2NW1/4SW1/4, SE1/4

T. 21 S., R. 6 E., SLM

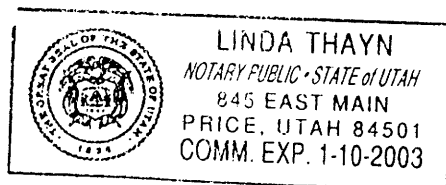
Sec. 19, lots 3-4, E1/2SW1/4

Sec. 30, lots 1-3, E1/2NW1/4, NE1/4SW1/4

Copies of the permit application will be available for inspection at the following locations: Utah Division of Oil, Gas and Mining, 1594 West North Temple, Suite 1210, Salt Lake City, Utah; and Sevier County Courthouse, Richfield, Utah.

Written comments or requests for an informal conference regarding this application may be addressed within 30 days of the last publication date of this notice, to the Utah Division of Oil, Gas and Mining, Box 145801, Salt Lake City, Utah 84114-5801.

Published in the Emery County Progress November 23, 30, December 7 and 14, 1999





State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Kathleen Clarke
Executive Director

Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210

PO Box 145801

Salt Lake City, Utah 84114-5801


801-538-5340

801-359-3940 (Fax)

801-538-7223 (TDD)

June 15, 2000

TO: Internal File

FROM: Pamela Grubaugh-Littig, Permit Supervisor 

RE: 510 (c) Recommendation for Pines Lease Tract, SUFCO Mine, ACT/041/002,
Internal File

As of the writing of this memo, there are no NOV's or CO's which are not corrected or in the process of being corrected for the SUFCO Mine. There are no finalized civil penalties which are outstanding and overdue in the name of Canyon Fuel Company, LLC. Canyon Fuel Company, LLC does not have a demonstrated pattern of willful violations, nor have they been subject to any bond forfeitures for any operation in the state of Utah.

Attached is an OSM recommendation from the Applicant Violator System that identified no violations retrieved from AVS and that AVS provided a quality check of this application on June 15, 2000.

sm

Attachment:

O:\041002.CON\FINAL\AVS.WPD

Application Evaluation Report Applicant Violator System 15-Jun-2000 11:34:46

State : UT Permit No : ACT041002 Appl No : ACT041002
Applicant : 142816(CANYON FUEL CO LLC) Seqno : 2

There were no violations retrieved by the system.

The AVS office provided a quality check on this application 06/15/2000

EVRPT(F7) PERMIT/APPL(F8)
PRV_SCR(F3) EVOFT(F5) REPORTS(F9) CHOICES(F10)

CHD KER DDE WINSOCK Node Connected

01220 00 ONLINE 8 1

Start Novell delivered Appl GroupWise - Mailbox Mail To: DWINTER Corel WordPerfect 4 MSN 11:33 AM

Application Evaluation Report Applicant Violator System 15-Jun-2000 12:38:43

State : UT Permit No : ACT041002 Appl No : ACT041002
Permittee : 142816(CANYON FUEL CO LLC) Seqno : 2
Applicant : 142816(CANYON FUEL CO LLC)

OSMRE: Comments/Analysis: Date : 15-Jun-2000 Mode : VIEW

There were no violations retrieved by the system. be

SRA: Comments/Analysis: Date : 15-Jun-2000 Mode : UPDATE

SAVE(F5) DELETE(F8)
PRV_SCR(F3) QUIT(F4) CHOICES(F10)

CMD KER ODE WINSOCK Node Connected

UT220 00 ONLINE 18 35

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MEMORANDUM OF AGREEMENT
BETWEEN
THE USDA- MANTI-LASAL NATIONAL FOREST,
THE UTAH STATE HISTORIC PRESERVATION OFFICER,
CANYON FUEL COMPANY, L.L.C.,
AND
UTAH DIVISION OF OIL, GAS AND MINING
REGARDING THE SUFCO MINE

Agreement No. 00-MU-11041000-017

WHEREAS, the United States Department of Agriculture-Forest Service, Manti-La Sal National Forest (USDA-FS) as the Federal Agency, charged with administering the surface resources on National Forest System lands for Federal coal leases U-76195 and U-63214 as authorized by the Mineral Leasing Act of 1920, as amended by the Coal Leasing Amendments of 1975 and the Office of Surface Mining (OSM) and the Utah Division of Oil, Gas and Mining (UDOGM) are responsible for administration of the SUFCO mine plan under the Surface Mining Control and Reclamation Act of 1977 and the Utah Coal Rules; and

WHEREAS, it is the statutory responsibility of the USDA-FS to ensure consideration of cultural resources as authorized in 36 CFR 800.2(a) and to ensure that the work conducted under this agreement meets professional standards as required by 36 CFR Part 800.2(a)(1); and

WHEREAS, the USDA-FS has determined that its consent to the SUFCO mine plan permit Incidental Boundary Change (Federal coal lease U-63214) and modification (U-76195) (hereinafter referred to as the Project) may have an effect on properties included in or eligible for inclusion in the National Register of Historic Places (NRHP) and has consulted with the Utah State Historic Preservation Officer (SHPO) pursuant to 36 CFR Part 800.6(b) of the Advisory Council on Historic Preservation (the Council) regulations implementing Section of 106 of the National Historic Preservation Act, as amended, [16 U.S.C. Section 470 (f)] and Section 110(f) of the same Act [16 U.S.C. 470 h-2 (f)]; and

WHEREAS, this Agreement covers permitting and administration of the SUFCO Mine (including underground mining activities such as construction of mine entries, gateroads, mechanical mining of longwall panels and ventilation breakout facilities) and mining-induced subsidence of the ground surface on National Forest System lands; and

WHEREAS, unless otherwise defined differently in this Agreement all terms are used in accordance with 36 CFR Part 800.16; and

WHEREAS, the Canyon Fuel Company, LLC (the Permittee) has been invited to participate in consultation and to concur in this Memorandum of Agreement;

WHEREAS, the USDA-FS has consulted with the appropriate Native American Tribes about the project; and

WHEREAS, the Uintah-Ouray Tribe has expressed an interest in historic properties within the project area and has been invited to comment and participate in this agreement;

NOW THEREFORE, the Permittee agrees that the underground mining operations of the Project shall be administered in accordance with the following stipulations to ensure that historic and prehistoric properties will be treated to avoid or mitigate effects to the extent practicable to satisfy the Forest Service, the Council, UDOGM, OSM and the SHPO and that the proposed project (undertaking) shall be administered in accordance with the following stipulations to satisfy Section 106 responsibilities for all aspects of the undertaking.

STIPULATIONS

In accordance with existing Forest Service guidelines for cultural resources (prehistoric and historic) and the Secretary of the Interior's Standards and Guidelines (48 FR 44716-44742) (the Secretary's Standards), the Forest Service will ensure that the following measures will be carried out:

1. The Forest Service will be the lead agency and will be the contact for tribes, BLM, OGM, OSM, the SHPO, and other interested parties for the project. The Permittee's cultural resource consultant may be called upon to facilitate coordination with the SHPO, company and other agencies or to distribute information and/or reports to reviewers.
2. The Council and the SHPO may monitor activities carried out pursuant to this Agreement, and the Council will review such activities if so requested. The Forest Service will cooperate with the Council and the SHPO in carrying out their monitoring and review responsibilities.
3. The USDA-FS will assure that all evaluation and monitoring of subsidence effects on historic properties and treatments will follow the general process outlined in the Cultural Resource Plan of Work prepared by the Permittee's cultural resource consultant which will meet the specifications as outlined.
4. Monitoring Plan. The USDA-FS will ensure that the Permittee's cultural resource consultant submits a Monitoring Plan to monitor sites described in Appendix B. The Monitoring Plan will describe in detail, the methods, procedures, and criteria (following guidelines in Attachment A) and monitoring frequency (following guidelines in Attachment B) to be employed in evaluating subsidence related effects to each of the sites. This will include, but not necessarily be limited to photography, mapping, field measurements, written descriptions and subsidence data (to be provided by Canyon Fuel Company, L.L.C). The plan will provide the data and information required for the Annual and Final Monitoring Reports as described in Attachments A and B.
5. The USDA-FS will ensure that all work undertaken to satisfy the terms of this Agreement meets the National Historic Preservation Act of 1966 as amended and implemented through 36 CFR 800 as amended 1999, the Secretary's Standards and is consistent with the Council's *Treatment of Archaeological Properties Handbook*, November 1980. The USDA-FS will also ensure that the work is carried out by or under the direct supervision of a person or persons meeting, at a minimum, the applicable professional qualifications standards set forth in the Secretary's Standards.
6. Monitoring Reports. One (1) final cultural resource report, an archaeological monitoring and evaluation of subsidence effects on cultural resources in the Project will be submitted to the Forest Service for initial review. In addition, annual reports of monitoring will also be submitted to the Forest Service for review; this may be included in the Permittee's Annual Subsidence Monitoring. However, any draft recommended determinations of effect, or re-evaluations of National Register eligibility will be submitted to the USDA-FS for review. The USDA-FS will first review these draft reports within 30 calendar days of receipt and request revisions and corrections as necessary. The revised draft report will be subject to USDA-FS review prior to the report being submitted to the SHPO and other agencies for comment. The Forest Service may request the permittee's contractor to submit the revised report to all parties. The SHPO review time will be 30 calendar days from their dated receipt of the document.
7. Assessing Effects. If, after review of the effects findings in the archaeological monitoring reports and/or other relevant data, the USDA-FS determines that underground mining activities has not affected historic properties, and/or if the USDA-FS determines that the effects are not adverse as defined in 36 CFR 800.5(a)(1 and 2), the USDA-FS will forward this determination to the SHPO for review. If, however, after review of these data, the USDA-FS determines and the SHPO concurs that the effects are adverse, the USDA-FS will continue to consult with the SHPO and other consulting parties and tribes to develop and evaluate alternatives, including data recovery measures to mitigate these adverse effects.
8. Treatment Plan. If the USDA-FS and SHPO agree that the underground mining has caused adverse effects, the USDA-FS shall ensure that the Permittee's Cultural Resource Consultant prepares a comprehensive Treatment Plan that will address the effects of the proposed undertaking on all historic properties determined to have been adversely affected. The Permittee will be financially responsible for development of the Treatment Plan and costs associated with data recovery, analysis and reporting to implement the Treatment Plan. The Treatment Plan shall identify the nature of the effects to which each property has been subjected and the treatment strategies proposed to minimize or mitigate the effects of the undertaking. The Treatment Plan shall meet the standards contained in Attachment A, "Standards for the Treatment Plan." The USDA-FS shall submit the Treatment Plan to the SHPO, other parties to this Agreement, and to identified interested parties (pursuant to the 1992 amendments to the Act) for review. The SHPO, and other parties will have 30 calendar days from receipt to comment on the Treatment Plan. If the SHPO, or other parties fail to submit their written comments within 30 calendar days of receipt, the USDA-FS shall implement the Treatment Plan. If the SHPO, or other parties object in writing to the Treatment Plan or any part thereof, within the review period, the USDA-FS will consult with the objecting party to resolve the objection.

If it is determined that more than one site has been adversely affected by underground mining activities and more than one site will require data recovery measures to mitigate adverse effects, a single, comprehensive research design and Treatment Plan is envisioned for this project through coordination by the Permittee's cultural resource consultant. The research design should reflect the site-specific character of the each site (age, cultural affiliation, site function) and the proposed treatment plan should take into account site-specific effects from underground mining. Though general research questions to be addressed through data recovery will be similar for sites in the area, the research design and treatment plan(s) should reflect the unique character and information potential of each affected historic property. Individual treatment plans may be submitted to the USDA-FS and SHPO for review and consideration. However, these site specific treatments, if required by circumstances, will be incorporated into the comprehensive Treatment Plan to follow. Review times for these specific treatments will be the same as the comprehensive Treatment Plan, above, although the USDA-FS may request expedited review.

9. The Permittee shall be responsible for protecting the cultural property during data recovery operations should data recovery actions be implemented. The Permittee shall also set forth written assurances that funding for fieldwork, analyses, and publication of results shall be made available for sites where data recovery and monitoring is enacted.

10. Curation of Specimens and records. The USDA-FS shall ensure that all records and materials resulting from identification and data recovery efforts are maintained and curated in accordance with 36 CFR 79. All costs of curation will be borne by the Permittee. With the exception of materials that may be repatriated in accordance with the provisions of the Native American Graves Protection Act of 1990 (NAGPRA), collections to be curated will be housed at the College of Eastern Utah Prehistoric Museum. The Permittee's cultural resource consultant will be required to acquire a valid curation agreement with the Museum prior to commencing data recovery operations.

11. Discovery Situations. The Permittee or cultural resource consultant employed by the Permittee shall bring to the attention of the Manti-La Sal National Forest Supervisor's Office any and all antiquities, or other objects of historic, paleontological, or scientific interest including, but not limited to, historic or prehistoric ruins or artifacts discovered as a result of this undertaking.

The Permittee's cultural resource consultant shall document the site on appropriate Intermountain Antiquities System Site (IMACS) records, photographs and detailed site maps showing site features, diagnostic artifacts, tools and natural features to facilitate relocating the site. Maps will show these features to within 90% accuracy. A permanent rebar datum (½" diameter, 3' length is the desired standard) will be established on the site and indicated on the site map to permit easy relocation of the discovery/feature. This datum point will be left in place.

The Permittee's cultural resource specialist will evaluate the site for its National Register eligibility and assess potential effects from underground mining. These findings shall be submitted to the USDA-FS. The USDA-FS will review these findings and forward its determination of eligibility and effect to the SHPO for review and comment. If the site is evaluated as significant and will be adversely affected by underground mining, a treatment plan will be developed in consultation with the USDA-FS and previously identified interested parties and tribes and the SHPO.

12. Human Remains. If human remains are discovered during monitoring, treatment or any other activities associated with the project, they will be secured and protected until such time as appropriate disposition has been determined, in accordance with applicable Federal statutes. Archaeological excavation in the immediate vicinity of the discovery will cease, but may continue on the remainder of the site.

The Manti-La Sal Forest archaeologist will be notified immediately by phone or in person, followed by written notification, of any discoveries of human remains, funerary objects, sacred objects, or objects of cultural patrimony. These items are subject to the requirements of Native American Graves Protection and Repatriation Act of 1990 (NAGPRA). General policy and direction for treatment of human remains will be addressed further in all Treatment Plans (and/or Data Recovery Plans) prepared for the project. In the absence of a specific plan, developed in consultation with a Tribe or Tribes, the USDA-FS will meet the requirements of NAGPRA for all discoveries of NAGPRA items including human remains, associated and unassociated funerary objects, sacred objects, and objects of cultural patrimony on a case by case basis in accordance with the implementing regulations set forth at 43CFR10.

13. Stipulations 10, 11, and 12 dealing with discoveries of historic properties, discovery and/or treatment of human remains and curation of specimens will be referenced in The Mine Plan of Operations and any approved Treatment Plans.

14. Should any party to this Agreement object, in writing, within 30 days to any actions pursuant to this Agreement, the USDA-FS shall consult with the objecting party to resolve the objection. If the USDA-FS determines that the objections cannot be resolved, the USDA-FS shall forward all documentation relevant to the dispute to the Council pursuant to (36CFR800.6(c)(ii)). Within 30 days after receipt of all pertinent documentation, the Council will either:

- a. Provide the USDA-FS with recommendations, which the USDA-FS will take into account in reaching a final decision regarding the dispute; or
- b. Notify the USDA-FS that it will comment pursuant to 36 CFR Part 800.7(c) and proceed to comment. Any Council comment provided in response to such a request will be taken into account by the USDA-FS with reference to the subject of dispute.

Any recommendation or comment provided by the Council will be understood to pertain only to the subject of the dispute; the USDA-FS responsibility to carry out all actions under this Agreement that are not the subject of the dispute will remain unchanged.

15. If it is determined that a historic property is being adversely affected or is likely to be adversely affected by subsidence, the Forest Service should consult with the other parties (as provided in Stipulation 7) and resolve any disputes among the parties following procedures in Stipulation 13.

16. Any party to this Agreement may request that it be amended, whereupon the parties will consult in accordance with 36 CFR Part 800.6(c)(7) to consider such amendment.

17. In the event that the ownership of the Permittee(s) changes, such change will be reflected by adding the new owner/mine operator's name signatory page without modification to this Agreement and without concurrence by other signatories to this Agreement.

18. Any one of the parties to this Agreement may terminate it by providing 30 calendar days notice, in writing, to the other parties, provided that the parties will consult during the period prior to termination to seek agreement on amendments or other actions that would avoid termination. In the event of a termination, the USDA-FS will comply with 36 CFR Part 800.3 through 800.6 with regard to individual actions covered by this Agreement.

19. In the event the Forest Service does not carry out the terms of this Agreement, the USDA-FS will comply with 36 CFR 800.3 through 800.6 with regard to individual actions covered by this Agreement.

20. This instrument in no way restricts the Forest Service or the Cooperators from participating in similar activities with other public or private agencies, organizations, and individuals.

21. Pursuant to Section 22, Title 41, United States Code, no member of, or Delegate to, Congress shall be admitted to any share or part of this instrument, or any benefits that may arise therefrom.

22. This instrument is executed as of the date of last signature and, unless sooner terminated, is effective through April 30, 2005 at which time it will expire unless renewed.

23. The principal contacts for this instrument are:

Paul Baker
Utah Division of Oil, Gas and Mining
1594 West North Temple
Salt Lake City, UT 84114
(801) 538-5261

Mike Davis
Canyon Fuel Company, L.L.C.
397 South 800 West
Salina, UT 84654
(435) 286-4421

Stan McDonald
Manti-La Sal National Forest
599 West Price River Drive
Price, UT 84501
(435) 637-2817

James Dykman
Utah State Historic Preservation Office
300 Rio Grande
Salt Lake City, UT 84101-1182
(801) 533-3555

23. Principal Contacts (continued):

Carol Gleichman
Advisory Council on Historic Preservation
12136 West Bayaud Avenue
Suite 330
Lakewood, CO 80228
(303) 969-5110

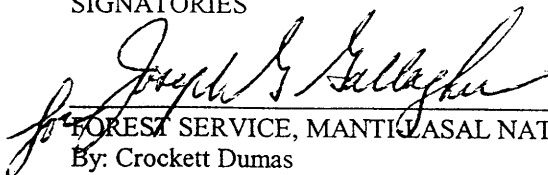
24. This instrument is neither a fiscal nor a funds obligation document. Any endeavor or transfer of anything of value involving reimbursement or contribution of funds between the parties to this instrument will be handled in accordance with applicable laws, regulations, and procedures including those for Government procurement and printing. Such endeavors will be outlined in separate agreements that shall be made in writing by representatives of the parties and shall be independently authorized by appropriate statutory authority. This instrument does not provide such authority. Specifically, this instrument does not establish authority for noncompetitive award to the cooperator of any contract or other agreement. Any contract or agreement for training or other services must fully comply with all applicable requirements for competition.

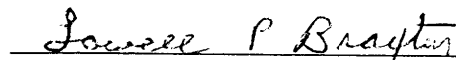
25. Modifications within the scope of this instrument shall be made by the issuance of an executed modification agreed to by all signatories prior to any changes being performed.

26. Any information furnished to the Forest Service under this instrument is subject to the Freedom of Information Act (5 U.S.C. 552).

Execution and implementation of this Agreement evidences that the USDA-FS has satisfied its Section 106 responsibilities as implemented by 36CFR800 (as amended 1999), for all individual activities on the undertaking and that UDOGM has met their responsibilities to consult with the Utah State Historic Preservation Office regarding the protection of historic properties.


SIGNATORIES

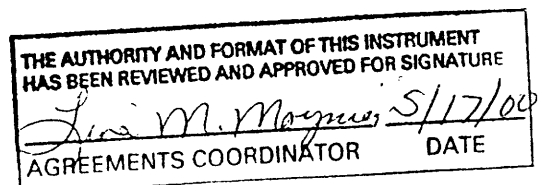
 19 May 2000
FOREST SERVICE, MANTICLASAL NATIONAL FOREST
By: Crockett Dumas Date:
Title: Acting Forest Supervisor

 5/25/00
UTAH DIVISION OF OIL, GAS AND MINING
By: Lowell P. Braxton Date:
Title: Director

 5/30/2000
UTAH STATE HISTORIC PRESERVATION OFFICER
By: Wilson Martin Date:
Title: Deputy SHPO

CONCURRENCE:

 5/24/2000
CANYON FUEL COMPANY, L.L.C.
By: Richard D. Pick Date:
Title: President and CEO



ATTACHMENT A
STANDARDS AND GUIDELINES FOR MONITORING,
MONITORING REPORTS, TREATMENT AND PERMITS

I. Standards for Monitoring and Monitoring Reports:

Standards for Monitoring

The Permittee's consultant shall submit a plan to monitor sites at the required monitoring frequencies for sites outlined in Attachment B. Monitoring will be implemented at the agreed upon intervals (see Attachment B) and continue through the conclusion of the liability period for the mine plan and/or subsidence is determined by the USDA-FS to be complete. The monitoring plan shall be developed in accordance with the procedures outlined in Item #4 of this agreement, stipulations listed below and the Standard for Monitoring Reports.

Standards for Annual Monitoring Reports.

A. Annual Monitoring Report: The Annual Monitoring Report is to be a brief report displaying:

- 1) Brief Description of the Project and Rationale for Monitoring.
- 2) Brief Description of Sites Monitored.
- 3) Monitoring Methods.
- 4) Monitoring frequency.
- 5) Monitoring observations for each site displaying monitoring criteria and results, photographs of each site.
- 6) Monitoring records will be attached as an Appendix.
- 7) Summary of Monitoring results including observed effects or unchanged situations.
- 8) Conclusions and recommendations, changes to the monitoring plan or for remedial actions.

B. Standards for Final Monitoring Report

At the conclusion of all monitoring (estimated to occur approximately three years subsequent to the completion of all subsidence at all sites, see Attachment B for further discussion on monitoring schedules) the Permittee's consultant shall submit a Final Cultural Resource Monitoring Report. The Cultural Resource Monitoring Report should include the following information:

1) Introduction

- a. Description of the Project Area
- b. Description of the proposed undertaking, background information on previous environmental analysis, Section 106-NHPA compliance required for the coal leasing project and administration of the Mine Plan, a brief discussion of anticipated effects to cultural resources from underground mining, and the rationale for implementation of the monitoring program.
- c. Locational information on 7.5 minute USGS Topographical Quadrangle including name, Section and Township/Range, land status (BLM, Forest Service, etc.), and county.
- d. USGS map (1:24000 scale) showing location and boundaries of project area. Map should be clearly labeled and of reproducible quality.
- e. Discussion of all sites monitored including site description, location, size, age, function, identified features and artifacts, and middens. A USGS map (1:24000 scale) showing the location of all monitored sites shall be included displaying Forest and Smithsonian Site numbers. Photographs of all monitored sites should be included in this section.
- f. Discussion of anticipated site-specific impacts (for each monitored site) posed by underground mining including predicted subsidence effects as displayed in the Pines Environmental Impact Statement, the Mining and Reclamation Plan, pertinent technical reports and other relevant data sources.

2) Environment

- a. Brief description of the environmental setting including topography, vegetation, elevation, water sources, ground visibility, and human alteration or disturbance, as appropriate.

3) Methodology

- a. Monitoring Information (general overview, purpose and scope of monitoring).
- b. Names and designations of field personnel.
- c. Dates of fieldwork.
- d. Monitoring techniques; types of monitoring employed including measurement of subsidence, standardized photography, field mapping, frequency of field monitoring and measurable criteria for assessing effects to the monitored sites. This will also include discussion of methodology and criteria employed during field monitoring to assess changes to the character of sites caused by impacts other than underground mining.
- e. The means relied upon for identifying the location of any monitoring reference points (e.g. photo reference points, elevational mapping points to measure vertical/horizontal displacement of ground surfaces).
- f. Photographs of fieldwork and monitoring techniques should be included in this section along with any graphic illustrations that will aid in explaining monitoring techniques to readers.
- g. Background data on monitoring techniques elsewhere which are applicable to the employed monitoring plan.

4) Monitoring Results

- a. A brief summary of the total number of sites monitored, the period and frequency of monitoring, and an overall assessment of the amount of subsidence that has occurred at each site and the observed impacts.
- b. Site-by-site descriptions of the monitoring results including the types of impacts observed, severity or degree and impacts and a discussion of observed impacts versus predicted impacts.
- c. Site-by-site evaluations of impacts to the qualities of sites that make them eligible for listing in the National Register of Historic Places.

5) Conclusions

- a. A brief summary of overall impacts to the monitored sites in the Project.
- b. Discussion and assessment of the effectiveness of monitoring techniques and recommendations for any changes to those techniques.
- c. Conclusions regarding direct, indirect and cumulative impacts to sites observed during monitoring including a summary of effects to the qualities of sites that make them eligible to the National Register.
- d. Recommendations for management including data recovery, further monitoring or other work necessary to mitigate any adverse impacts caused by underground mining activities.

6) Appendices

- a. Monitoring records. Copies of monitoring records and data recording sheets, photographs and maps.
- b. Updated site records to document changes to site character observed during monitoring.

C. The time frames for submitting reports are as follows:

1. Annual Report:

Draft Annual report of monitoring results: January 15

Forest Service review comments (and addressing comments of UDOGM): February 15

Revision and Final Annual Report: March 15

2. Final Monitoring Report

Draft of Final Monitoring Report: 6 months following the conclusion of the permit.

Forest Service Review comments: 30 days after receipt of the draft final report.

Revision and submission of final report: 30 days after USDA-FS comments.

D. Number of report copies and submission. Two copies of the annual reports and final report will be submitted to the USDA-Forest Service. Distribution will be coordinated through the USDA-Forest Service and the Permittee's Cultural Resource Consultant. Except as noted below, each party to this agreement will be provided with copies of the draft and final annual report and drafts and final copies of the final comprehensive report. Draft report copies will be submitted to the parties in this agreement by Canyon Fuel Company. Draft copies of reports will not be submitted to SHPO. Final copies will be submitted to SHPO and such submission will be coordinated through the USDA-Forest Service and the Permittee's Cultural Resource Consultant. The report shall meet the Secretary of Interior's Standards and Guidelines for Archaeology and Historic Preservation (48 FR 44728-44738), (Secretary's Standards), and following the aforementioned outline for the Monitoring Reports. The Permittee's consultant will also provide the USDA-Forest Service with one unbound, camera ready, single spaced text with original archivally processed photographic plates of this report.

II. Guidelines for Treatment

A. General

1) The Treatment Plan will conform to the Secretary's Standards. Treatment recommendations should be commensurate with the nature and significance of the involved cultural resources. Recommendations should consider a range of alternative treatments including protection measures and data recovery.

B. Standards for the Treatment Plan.

1) The Data Recovery Plan shall conform to the Secretary's Standards and should provide the context and justification for, and a detailed description of, the proposed data recovery work.

2) Protection Measures

a. Recommendations for physical or administrative protection measures must consider the nature and source of deterioration of the properties.

b. If long term physical or administrative protection measures are recommended, proposals must include justification and undertaking specifications.

3) The Treatment Plan shall include at a minimum:

a. The properties or portions of properties where data recovery is to be carried out;

b. Any property, properties, or portions of properties that will be destroyed, altered, or transferred without data recovery;

c. The research questions to be addressed through the data recovery, with an explanation of their relevance and importance;

d. The methods to be used, with an explanation of their relevance to the research questions;

e. The methods to be used in analysis, data management, and dissemination of data;

f. The proposed disposition of recovered materials and records including the disposition of Native American sacred items, human remains, and grave goods;

- g. Proposed methods for involving the interested public in data recovery;
- h. Proposed methods for disseminating results of the work to the interested public;
- i. Proposed methods by which relevant Native American Tribes and local governments will be kept informed of the work and afforded an opportunity to participate;
- j. A proposed schedule for the submission of progress reports to the USDA-Forest Service and cooperating agencies.
- k. Proposed methods for site rehabilitation/stabilization following excavation activities, and tied to the Permittee's Plan of Development.
- l. Address security measure(s) for site protection during excavation.
- m. Address how cultural artifacts and samples (carbon 14, pollen, etc.) collected will be secured and protected from the time of removal through excavation or sampling to the final curation facility.

C. Draft Report

- 1) Preliminary Summary Report of the data recovery will be issued within 60 (sixty) days from completion of the project data recovery.
- 2) The Permittee will submit a data recovery draft report to the USDA-Forest Service following completion of all planned treatment within 18 months after completion of project construction. This report will meet the Secretary's Standards.
- 3) Distribution of the data recovery draft report for review and comment will be coordinated through the USDA-Forest Service and the Permittee's Cultural Resource Consultant. The data recovery draft report will be reviewed by the Forest Service. Copies will also be distributed to each SHPO and agency, with comments made back to the Permittee's Cultural Resource Consultant within 30 calendar days. The Forest Service will then review the corrected draft for completeness and for appropriate incorporation of review comments prior to acceptance of the revised draft. The Forest Service will submit the revised data recovery draft report to all the signatories to the Agreement for their review. There will be a 30 calendar day period for review of the revised draft.

D. Final Report

- 1) The Permittee's Cultural Resource Consultant shall submit a data recovery final report based on the review and comments to the Forest Service. The Forest Service will follow the same process and time frames established in Stipulation 5 of this document in review and preparation of the final report.
- 2) Distribution of copies of the data recovery final report will be coordinated through the Forest Service and the Permittee's Cultural Resource Consultant. The number of copies to be produced will be determined by Forest Service in coordination with the Cultural Resource Consultant. At a minimum, copies of the report will be made available to the Council, the SHPO, the Forest Service, the Permittee, reviewing agencies, and all interested parties.
- 3) The Permittee's Cultural Resource Consultant will provide the Forest Service with one unbound, camera ready, single spaced text with archivally processed photographic plates of the final data recovery report.

III. Standards for Permits

A. General Standards

**ATTACHMENT B:
LIST OF SITES TO BE MONITORED**

State/Forest Site Numbers	Site Name	Site Type	Anticipated Impacts	Monitoring Frequency *
42SV2492/ML-3582		Prehistoric Rockshelter	Low Risk for roof failure	Monitoring Schedule B
42SV2423/ML-3439	Refugia Shelter	Prehistoric Rockshelter	None. Mine area below will be fully supported	Monitoring Schedule A
42SV2425/ML-3441		Prehistoric Lithic Scatter	Potential surface cracking	Monitoring Schedule A
42SV2430/ML-3446	Elusive Peacock Shelter	Prehistoric Rockshelter	None. Mine area below will not be mined.	Monitoring Schedule A
42SV2432/ML-3448		Prehistoric Rockshelter	Will be fully supported/low risk of structural failure	Monitoring Schedule A
42SV2433/ML-3449	Big Mac Shelter	Prehistoric Rockshelter	Moderate risk of roof failure	Monitoring Schedule B
42SV2434/ML-3450	Little Mac Shelter	Prehistoric Rockshelter	Moderate risk of roof failure	Monitoring Schedule B
42SV896	Crazy Bird Shelter	Prehistoric Rockshelter	Data recovery implemented under previous 106 consultation; only minor spalling outside of shelter has occurred.	Monitoring Schedule C
42SV2386		Prehistoric Lithic/Ceramic Scatter	Potential surface cracking	Monitoring Schedule C
42SV2387		Prehistoric Lithic Scatter/Rock Art	Some potential for surface cracking	Testing, Monitoring Schedule C
42SV2388		Prehistoric Lithic and Groundstone Artifact Scatter	Limited potential for surface cracking	Monitoring Schedule C
42SV2389		Prehistoric Rockshelter	Potential for failure of portion of shelter roof	Testing, Monitoring Schedule C
42SV2341/ML-3335		Prehistoric Rockshelter	Within area of active mining/potential for roof failure	Monitoring Schedule B

FOOTNOTES:

Monitor Schedule A: Sites listed in this schedule are located in areas that will be mined using full-support methods (e.g. gateroad entry area where pillars are left in place) or are close to areas to be mined. Monitoring schedule for these sites is as follows: (a) 6 months prior to the mining, the site will be monitored once to provide baseline conditions; (b) After the onset of mining, the site will be monitored once within the following six months (1 to 6 months after the initiation of active subsidence) and once in the following six months (6-12 months after the

ATTACHMENT B, List of Sites to be Monitored, Footnotes-Monitor Schedule A (continued):

initiation of active subsidence); and (c) thereafter, the site will be monitored once per year for two (2) more years at the rate of once per year (when the effects of subsidence are estimated to be complete). If subsidence monitoring data indicates further movement of the ground surface, monitoring will continue at the rate of once per year until such time that subsidence monitoring data indicates no further movement of the ground surface.**

Monitoring Schedule B: Sites listed in this schedule are located in areas which will be mined under and subsided. The monitoring schedule for these sites is as follows: (a) 6 months prior to the period of mining (initiated when the site is located within the angle of draw), the site will be monitored once to provide baseline conditions; (b) after the onset of active subsidence, the site will be monitored once per month within the following six months (1 to 6 months after the initiation of active subsidence) and quarterly (once per 3 months) in the following six months (6-12 months after the initiation of active subsidence); (c) thereafter, the site will be monitored once per year for two (2) more years at the rate of once per year (when the effects of subsidence are estimated to be complete). If subsidence monitoring data indicates further movement of the ground surface, monitoring will continue at the rate of once per year until such time that subsidence monitoring data indicates no further movement of the ground surface.**

Monitoring Schedule C: Sites listed in this schedule are located in areas currently being undermined and are under approved mine plans. Sites in this schedule will be monitored once per year for at least two (2) years until such time that subsidence monitoring data indicates no further movement of the ground surface and that subsidence is complete.**

Note: Some sites may be located in areas that will be (1) mined first using full support methods and (2) later subjected to subsidence from adjacent mining by full-extraction methods (long-wall panels). Thus, both Monitoring Schedules A and B may apply.

*Final assignment of sites to either Monitor Schedule A or Monitor Schedule B or both is contingent upon approval of the final mine plan.

**Final Monitoring Report Schedule will commence at the end of the final two year period of monitoring.



United States Department of the Interior
FISH AND WILDLIFE SERVICE

UTAH FIELD OFFICE
LINCOLN PLAZA
145 EAST 1300 SOUTH, SUITE 404
SALT LAKE CITY, UTAH 84115

04/002 Incoming
cc: Paul
Daron

In Reply Refer To

(CO/KS/NE/UT)

April 25, 2000

RECEIVED

APR 26 2000

DIVISION OF
OIL, GAS AND MINING

Mr. Darron Haddock, Permit Supervisor
Utah Division Oil, Gas, and Mining
Box 145801
Salt Lake City, Utah 84114-5801

RE: Section 7 Consultation on the Pines Tract Revision, Canyon Fuel Company, LLC,
SUFCO Mine, ACT/041/002-SR99D, Folder #2, Sevier County, Utah

Dear Mr. Haddock:

The U.S. Fish and Wildlife Service (Service) has reviewed your letter of April 3, 2000. Potential impacts to proposed or listed species from mining activities have been previously addressed in the Service's September 24, 1996 Biological Opinion and Conference Report on Surface Coal Mining and Reclamation Operations under the Surface Coal Mining and Reclamation Act of 1977. As part of the terms and conditions of this BO, the regulatory authority must implement and require compliance with any species-specific protective measures developed by the Service field office and the regulatory authority. No species-specific protective measures are considered necessary for the subject project.

We concur with your "not likely to adversely affect" determination for the southwestern willow flycatcher and "no effect" determination for other listed species except for the four Colorado River endangered fish species..

The project proposes continued water use at the current rate. In addition, there could potentially be some disruption of groundwater flows although the amount of loss is expected to be nonexistent or minor. Any water depletions from the Upper Colorado River Basin are considered to jeopardize the continued existence or adversely modify the critical habitat of the four Colorado River endangered fish species: Colorado pikeminnow, razorback sucker, bonytail chub, and humpback chub. However, depletions are addressed by existing inter-agency section 7 agreements. In 1998, the Department of the Interior, the states of Wyoming, Colorado, and Utah, and the Western Area Power Administration established the Recovery Implementation Program for Endangered Fish Species in the Upper Colorado River Basin (RIP). The purpose of the RIP is to recover listed species while providing for new water development in the Upper Colorado River Basin. In accordance with the RIP, the Service assesses impacts of projects that require section 7 consultation and determines how the RIP will serve as a reasonable and prudent alternative.

This is your future. Don't leave it blank. - Support the 2000 Census

For new depletions less than 100-acre feet, and intra-service agreement based on basin-wide cumulative depletions precludes the need for a depletion charge and the RIP recovery activities are considered to offset depletion impacts. Therefore, the depletion fee for this project is waived. It is important to note that the Service is required to consult on and keep track of all depletions, historic or new, of any magnitude. Therefore, UDOGM should report all water depletion to our office.

Should project plans change, or if additional information on the distribution of listed or proposed species becomes available, this determination may be reconsidered. Only a Federal agency can enter into formal Endangered Species Act section 7 consultation with the Service. A Federal agency may designate a non-Federal representative to conduct informal consultation or prepare a biological assessment by giving written notice to the Service of such a designation. The ultimate responsibility for compliance with ESA section 7, however, remains with the Federal agency.


As you are aware, the peregrine falcon was removed from the federal list of endangered and threatened species per Final Rule of August 25, 1999 (64 FR 46542). Protection is still provided for this species under authority of the Migratory Bird Treaty Act (16 U.S.C. 703-712) which makes it unlawful to take, kill, or possess migratory birds, their parts, nests, or eggs. When taking of migratory birds is determined by the applicant to be the only alternative, application for federal and state permits must be made through the appropriate authorities. For take of raptors, their nests, or eggs, Migratory Bird Permits must be obtained through the Service's Migratory Bird Permit Office in Denver at (303) 236-8145.

We recommend use of the *Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances* which were developed in part to provide consistent application of raptor protection measures statewide and provide full compliance with environmental laws regarding raptor protection. Raptor surveys and mitigation measures are provided in the Raptor Guidelines as recommendations to ensure that proposed projects will avoid adverse impacts to raptors, including the peregrine falcon.

We appreciate your interest in conserving endangered species and migratory birds. If further assistance is needed or you have any questions, please contact Laura Romin, at (801) 524-5001 extension 142.

Sincerely,



 Reed E. Harris
Utah Field Supervisor

cc: Sandy Vana-Miller, Office of Surface Mining, 1999 Broadway, Suite 3320, Denver, CO 80202



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Price Field Office
125 South 600 West
Price, Utah 84501

CERTIFIED MAIL - RETURN RECEIPT REQUESTED
Certified No. Z 182 430 785

Mr. Kenneth E. May
General Manager
Canyon Fuel Company, LLC
SUFCO Mine
397 South 800 West
Salina, Utah 84654

3482
U-63214
UTU-76195
U-062453
UT-47080
U-63214
U-0149084
SL-062583
U-28297
(UT-070)

JUN 1 2000

Re: Resource Recovery and Protection Plan (R2P2) SUFCO Mine, Canyon Fuel Company, *Copy PAN*
LLC, (CFC), March 2000

ACT/041/002
Incoming

Dear Mr. May:

The Bureau of Land Management (BLM) received CFC's revised R2P2 for the SUFCO Mine. This letter is to notify you that we have completed our review of CFC's R2P2 regarding the SUFCO Mine (lease modification U-63214 and UTU-76195). The purpose of this review was to determine compliance with The Mineral Leasing Act of 1920, as amended; the regulations at 43CFR 3480; the lease terms and conditions and to ensure that maximum economic recovery (MER) will be achieved.

Our determination of the subject R2P2 is as follows:

- ♦ The reserves as detailed in the R2P2 are noted as CFC mine plan coal reserves and not the official designated BLM recoverable coal reserves. BLM guidelines state that recoverable coal reserves contained within a Federal lease are based upon those recoverable coal reserves which diligence is based. These are those recoverable coal reserves determined to exist on the date the lease becomes subject to diligence. Recoverable coal reserves are not reduced by production after the lease is subject to diligence. The official compilation of the recoverable reserve base within Federal lease UTU-76195 and the 150-acre modification of Federal lease U-63214 of the SUFCO Mine are those BLM has designated as the recoverable coal reserve base tied to diligence.
- ♦ CFC has submitted a resource and protection plan (R2P2) for the addition of Federal lease UTU-76195 and the 150-acre modification of Federal lease U-63214 to the SUFCO Mine (see enclosure). The mine plan modification request designates recoverable coal reserves in Area "A" and "B" (see enclosure) as not to be mined. Federal regulations require appropriate justification for all unmined areas of the reserves/coalbed within lease boundaries that are not to be bypassed (**43 CFR-3482.1(c)(7)**) Explanation of how MER of the Federal coal lease will be achieved ... If a coalbed, or portion thereof, is not to be mined or rendered unminable ... lessee shall submit appropriate justification to the authorized officer for approval). Our review of the geologic data does not indicate the preponderance

RECEIVED

JUN 05 2000

**DIVISION OF
OIL, GAS AND MINING**

of evidence to justify at this time eliminating these coal reserves. The proposed deletion of the recoverable coal reserves without sufficient justification will not be allowed and shall be mined by CFC. The recoverable coal reserves within Area "A", and "B" will remain in the recoverable coal base and be mined. The affected reserves are located in the Upper Hiawatha Seam in Federal coal leases UTU-76195 and U-63214.

Based upon the above-stated requirements, BLM determination is conditioned with the following stipulation:

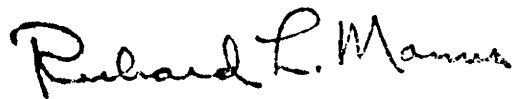
Stipulation: CFC shall submit the following information (as requested above):

- ◆ Those areas of Federal coal lease UTU-76195 designated as Areas "A" and "B" (Enclosure 1), as shown, will remain in the recoverable coal base and be mined by CFC..

BLM has analyzed the situation and reviewed all supporting documentation. The results of the analysis indicate that this change (the proposed addition of Federal lease UTU-76195 and the 150-acre modification of Federal lease U-63214 to the SUFCO Mine to the mining plan (R2P2), with stipulation, is in compliance with the Mineral Leasing Act of 1920, as amended; the regulations at 43 CFR 3480; the lease terms and stipulations, and will achieve maximum economic recovery (MER) of the Federal coal. Thus, approval for the modification to the mine plan (R2P2) for the SUFCO Mine is granted.

If you have any questions, please contact George Tetreault at the Price Field Office at (435) 636-3604.

Sincerely,



Richard L. Manus
Field Manager

Enclosure
Map 1 (1 pg)

cc: UT-921, SD, Utah
Utah Division of Oil, Gas and Mining
355 West North Temple Street
3 Triad Center Ste.350
Salt Lake City, Utah 84180-1203
Joe Wilcox
Office of Surface Mining
Reclamation and Enforcement
1999 Broadway, Suite 3320
Denver, Colorado 80202-5733

Pines Tract
Lease Boundary

Burn
Areas

"B"



Canyon Fuel Company, LLC
SUFCO Mine

PINES TRACT MINING PLAN

DATE: MAY 24, 2000

SCALE: 1" = 4000'

397 SOUTH 800 WEST
SALINA, UTAH 84654

DRAWN BY: WJN

FILENAME:
H:\WJNDRAW\JUNK\PINES8x11.DWG

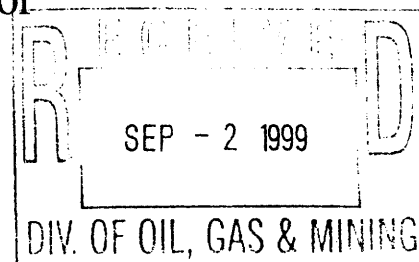
Enclosure 1



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, UT 84145-0155



In Reply Refer To:

3425

UTU-76195

(UT-932)

SEP 1 1999

CERTIFIED MAIL—Return Receipt Requested

DECISION

Canyon Fuel Company, LLC
c/o Ark Land Company
Attn: Douglas M. Downing
CityPlace One, Suite 300
St. Louis, MO 63141

Coal Lease
UTU-76195

Lease Issued
Bonds Accepted

ACT 1041/002 #2
Copy Daron

Pursuant to the lease by application sale held May 20, 1999, the bid of Canyon Fuel Company, LLC for the Pines Tract, assigned serial no. UTU-76195, was determined to be the acceptable high bid. Satisfactory evidence of the qualifications and holdings of Canyon Fuel Company, LLC has been submitted; therefore, coal lease UTU-76195 is hereby issued effective October 1, 1999.

Two surety bonds were filed in this office July 21, 1999. Surety bond no. 14-000-068-0033-UT, in the amount of \$13,520,000 was filed to cover the remaining bonus bid payments. Surety bond no. 14-000-068-0034-UT, in the amount of \$166,000, was filed to cover the estimated royalty on three months' production plus one year's rental. The name of the surety is Liberty Mutual Insurance Company, and the bonds are hereby accepted as of the date of filing.

Christopher J. Merritt

Christopher J. Merritt
Acting Branch Chief,
Minerals Adjudication

Enclosure

Coal Lease UTU-76195

cc: Price Coal Office (Attn: Steve Falk) (w/encl.)
Canyon Fuel Company, LLC, 6955 S. Union Park Center, #540, Midvale, UT (w/encl.)
Dorsey & Whitney LLP (Attn: William B. Prince), 170 S. Main, #925, SLC, UT (w/encl.)
MMS, Solid Minerals Staff (w/encl.)
Resource Development Coordinating Committee (w/encl.)
Mr. Lowell Braxton, Director, UDOGM, Box 145801, SLC, UT 84114-5801 (w/encl.)
U.S. Forest Service, Ogden, UT (w/encl.)
Manti-LaSal NF (w/encl.)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Serial Number

UTU-76195

COAL LEASE

PART I. LEASE RIGHTS GRANTED

This lease, entered into by and between the UNITED STATES OF AMERICA, hereinafter called lessor, through the Bureau of Land Management, and (Name and Address)

Canyon Fuel Company, LLC
6955 S. Union Park Center, Suite 540
Midvale, UT 84047

hereinafter called lessee, is effective (date) **OCT 1 1999** for a period of 20 years and for so long thereafter as coal is produced in commercial quantities from the leased lands, subject to readjustment of lease terms at the end of the 20th lease year and each 10-year period thereafter.

Sec. 1. This lease is issued pursuant and subject to the terms and provisions of the:

- ☒ Mineral Lands Leasing Act of 1920, Act of February 25, 1920, as amended, 41 Stat. 437, 30 U.S.C. 181-287, hereinafter referred to as the Act;
☐ Mineral Leasing Act for Acquired Lands, Act of August 7, 1947, 61 Stat. 913, 30 U.S.C. 351-359;

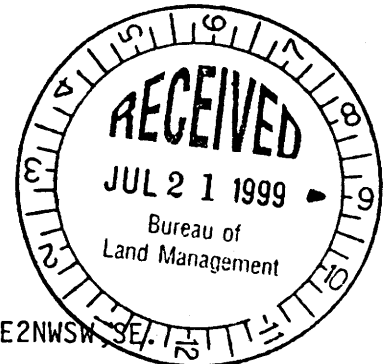
and to the regulations and formal orders of the Secretary of the Interior which are now or hereafter in force, when not inconsistent with the express and specific provisions herein.

Sec. 2. Lessor, in consideration of any bonuses, rents, and royalties to be paid, and the conditions and covenants to be observed as herein set forth, hereby grants and leases to lessee the exclusive right and privilege to drill for, mine, extract, remove, or otherwise process and dispose of the coal deposits in, upon, or under the following described lands:

T. 20 S., R. 5 E., SLM, Utah
Sec. 35, S2NE, SENW, NESW, S2SW, SE;
Sec. 36, W2SW, SESW.

T. 21 S., R. 6 E., SLM, Utah
Sec. 19, lots 3, 4, E2SW;
Sec. 30, lots 1-3, E2NW, NESW.

T. 21 S., R. 5 E., SLM, Utah
Sec. 1, lots 3, 4, S2SW, SWSE;
Sec. 2, lots 1-4, S2S2;
Sec. 10, E2;
Sec. 11, all;
Sec. 12, all;
Sec. 13, all;
Sec. 14, all;
Sec. 15, E2;
Sec. 22, E2;
Sec. 23, all;
Sec. 24, all;
Sec. 25, N2, N2S2;
Sec. 26, N2, NESW, E2NWSW, SE.



containing 7,171.66 acres, more or less, together with the right to construct such works, buildings, plants, structures, equipment and appliances and the right to use such on-lease rights-of-way which may be necessary and convenient in the exercise of the rights and privileges granted, subject to the conditions herein provided.

PART II TERMS AND CONDITIONS

Sec. 1. (a) RENTAL RATE - Lessee shall pay lessor rental annually and in advance for each acre or fraction thereof during the continuance of the lease at the rate of \$ 3.00/acre for each lease year.

(b) RENTAL CREDITS - Rental shall not be credited against either production or advance royalties for any year.

Sec. 2. (a) PRODUCTION ROYALTIES - The royalty shall be 8 percent of the value of the coal as set forth in the regulations. Royalties are due to lessor the final day of the month succeeding the calendar month in which the royalty obligation accrues.

(b) ADVANCE ROYALTIES - Upon request by the lessee, the authorized officer may accept, for a total of not more than 10 years, the payment of advance royalties in lieu of continued operation, consistent with the regulations. The advance royalty shall be based on a percent of the value of a minimum number of tons determined in the manner established by the advance royalty regulations in effect at the time the lessee requests approval to pay advance royalties in lieu of continued operation.

Sec. 3. BONDS - Lessee shall maintain in the proper office a lease bond in the amount of \$13,686,000. The authorized officer may require an increase in this amount when additional coverage is determined appropriate.

Sec. 4. DILIGENCE - This lease is subject to the conditions of diligent development and continued operation, except that these conditions are excused when operations under the lease are interrupted by strikes, the elements, or casualties not attributable to the lessee. The lessor, in the public interest, may suspend the condition of continued operation upon payment of advance royalties in accordance with the regulations in existence at the time of the suspension. Lessee's failure to produce coal in commercial quantities at the end of 10 years shall terminate the lease. Lessee shall submit an operation and reclamation plan pursuant to Section 7 of the Act not later than 3 years after lease issuance.

The lessor reserves the power to assent to or order the suspension of the terms and conditions of this lease in accordance with, inter alia, Section 39 of the Mineral Leasing Act, 30 U.S.C. 209.

Sec. 5. LOGICAL MINING UNIT (LMU) - Either upon approval by the lessor of the lessee's application or at the direction of the lessor, this lease shall become an LMU or part of an LMU, subject to the provisions set forth in the regulations.

The stipulations established in an LMU approval in effect at the time of LMU approval will supersede the relevant inconsistent terms of this lease so long as the lease remains committed to the LMU. If the LMU of which this lease is a part is dissolved, the lease shall then be subject to the lease terms which would have been applied if the lease had not been included in an LMU.

SEE ATTACHED STIPULATIONS

THE UNITED STATES OF AMERICA

Canyon Fuel Company L.L.C.

Company or Lessee Name



(Signature of Lessee)

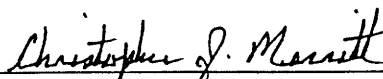
Vice President and Secretary

(Title)

July 1, 1999

(Date)

By Bureau of Land Management



(Signing Officer)

Acting Branch Chief, Minerals Adjudication

(Title)

September 1, 1999

(Date)

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

This form does not constitute an information collection as defined by 44 U.S.C. 3502 and therefore does not require OMB approval.

**Special Coal Lease Stipulations
Pines Tract
UTU-76195**

Federal Regulations 43 CFR 3400 pertaining to Coal Management make provisions for the Surface Management Agency, the surface of which is under the jurisdiction of any Federal Agency other than the Department of the Interior, to consent to leasing and to prescribe conditions to insure the use and protection of the lands. All or part of this lease contain lands the surface of which are managed by the United States Department of Agriculture, Forest Service-Manti-LaSal National Forest.

The following stipulations pertain to the Lessee responsibility for mining operations on the lease area and on adjacent areas as may be specifically designated on National Forest System Lands.

Stipulation #1.

Before undertaking activities that may disturb the surface of previously undisturbed leased lands, the Lessee may be required to conduct a cultural resource inventory and a paleontological appraisal of the areas to be disturbed. These studies shall be conducted by qualified professional cultural resource specialists or qualified paleontologists, as appropriate, and a report prepared itemizing the findings. A plan will then be submitted making recommendations for the protection of, or measures to be taken to mitigate impacts for identified cultural or paleontological resources.

If cultural resources or paleontological remains (fossils) of significant scientific interest are discovered during operations under this lease, the Lessee prior to disturbance shall immediately bring them to the attention of the appropriate authority. Paleontological remains of significant scientific interest do not include leaves, ferns or dinosaur tracks commonly encountered during underground mining operations.

The cost of conducting the inventory, preparing reports, and carrying out mitigating measures shall be borne by the Lessee.

Stipulation #2.

If there is reason to believe that Threatened or Endangered (T&E) species of plants or animals, or migratory bird species of high Federal interest occur in the area, the Lessee shall be required to conduct an intensive field inventory of the area to be disturbed and/or impacted. The inventory shall be conducted by a qualified specialist and a report of findings will be prepared. A plan will be prepared making recommendations for the protection of these species or action necessary to mitigate the disturbance.

The cost of conducting the inventory, preparing reports and carrying out mitigating measures shall be borne by the Lessee.

Stipulation #3.

The Lessee shall be required to perform a study to secure adequate baseline data to quantify the existing surface resources on and adjacent to the lease area. Existing data may be used if such data are adequate for the intended purposes. The study shall be adequate to locate, quantify, and demonstrate the interrelationship of the geology, topography, surface and groundwater hydrology, vegetation and wildlife. Baseline data will be established so that future programs of observation can be incorporated at regular intervals for comparison.

Stipulation #4.

Powerlines used in conjunction with the mining of coal from this lease shall be constructed so as to provide adequate protection for raptors and other large birds. When feasible, powerlines will be located at least 100 yards from public roads.

Stipulation #5.

The limited area available for mine facilities at the coal outcrop, steep topography, adverse winter weather, and physical limitations on the size and design of access roads, are factors which will determine the ultimate size of the surface area utilized for the mine. A site-specific environmental analysis will be prepared for each new mine site development and for major improvements to existing developments to examine alternatives and mitigate conflicts.

Stipulation #6.

Consideration will be given to site selection to reduce adverse visual impacts. Where alternative sites are available, and each alternative is technically feasible, the alternative involving the least damage to the scenery and other resources shall be selected. Permanent structures and facilities will be designed, and screening techniques employed to reduce visual impacts, and where possible, achieve a final landscape compatible with the natural surroundings. The creation of unusual, objectionable, or unnatural landforms and vegetative landscape features will be avoided.

Stipulation #7.

The Lessee shall be required to establish a monitoring system to locate, measure and quantify the progressive and final effects of underground mining activities on the topographic surface, underground and surface hydrology and vegetation. The monitoring system shall utilize techniques which will provide a continuing record of change over time and an analytical method and measurement of a number of points over the lease area. The monitoring shall incorporate and be an extension of the baseline data.

Stipulation #8.

The lessee shall provide for the suppression and control of fugitive dust on haul roads and at coal handling and storage facilities. On Forest Development Roads (FDR), Lessees may perform their share of road maintenance by a commensurate share agreement if a significant degree of traffic is generated that is not related to their activities.

Stipulation #9.

Except at specifically approved locations, underground mining operations shall be conducted in such a manner so as to prevent surface subsidence that would: (1) cause the creation of hazardous conditions such as potential escarpment failure and landslides, (2) cause damage to existing surface structures, and (3) damage or alter the flow of perennial streams. The Lessee shall provide specific measures for the protection of escarpments, and determine corrective measures to assure that hazardous conditions are not created.

Stipulation #10.

In order to avoid surface disturbance on steep canyon slopes and to preclude the need for surface access, all surface breakouts for ventilation tunnels shall be constructed from inside the mine, except at specific approved locations.

Stipulation #11.

If removal of timber is required for clearing of construction sites, etc., such timber shall be removed in accordance with the regulations of the surface management agency.

Stipulation #12.

The coal contained within, and authorized for mining under this lease shall be extracted only by underground mining methods.

Stipulation #13.

Existing Forest Service owned or permitted surface improvements will need to be protected, restored, or replaced to provide for the continuance of current land uses.

Stipulation #14.

In order to protect big-game wintering areas, elk calving and deer fawning areas, sage grouse strutting areas, and other key wildlife habitat and/or activities, specific surface uses outside the mine development area may be curtailed during specified periods of the year.

Stipulation #15.

Support facilities, structures, equipment, and similar developments will be removed from the lease area within two years after the final termination of use of such facilities. This provision shall apply unless the requirement of Section 10 of the lease forms is applicable. Disturbed areas and those areas previously occupied by such facilities will be stabilized and rehabilitated, drainages reestablished, and the areas returned to a pre-mining use.

Stipulation #16.

The Lessee, at the conclusion of the mining operation, or at other times as surface disturbance related to mining may occur, will replace all damaged, disturbed or displaced corner monuments (section corners, 1/4 corners etc.), their accessories and appendages (witness trees, bearing trees, etc.), or restore them to their original condition and location, or at other locations that meet requirements of the rectangular surveying system. This work shall be conducted at the expense of the Lessee, by a professional land surveyor registered in the State of Utah, and to the standards and guidelines found in the Manual of Surveying Instructions, United States Department of the Interior.

Stipulation #17.

The Lessees, at their expense, will be responsible to replace any surface water and/or developed ground-water source identified for protection, that may be lost or adversely affected by mining operations, with water from an alternate source in sufficient quantity and quality to maintain existing riparian habitat, fishery habitat, livestock and wildlife use, or other land uses (authorized by 36 CFR 251).

Stipulation #18.

STIPULATION FOR LANDS OF THE NATIONAL FOREST SYSTEM
UNDER JURISDICTION OF
THE DEPARTMENT OF AGRICULTURE

The licensee/permittee/lessee must comply with all the rules and regulations of the Secretary of Agriculture set forth at Title 36, Chapter II, of the Code of Federal Regulations governing the use and management of the National Forest System (NFS) when not inconsistent with the rights granted by the Secretary of the Interior in the license/permit/lease. The Secretary of Agriculture's rules and regulations must be complied with for (1) all use and occupancy of the NFS prior to approval of a permit/operation plan by the Secretary of the Interior, (2) uses of all existing improvements, such as Forest Development Roads, within and outside the area licensed, permitted or leased by the Secretary of the Interior, and (3) use and occupancy of the NFS not authorized by a permit/operating plan approved by the Secretary of the Interior.

All matters related to this stipulation are to be addressed to:

Forest Supervisor
Manti-LaSal National Forest
599 West Price River Drive
Price, Utah 84501
Telephone: 435-637-2817

who is the authorized representative of the Secretary of Agriculture.

Stipulation #19.

ABANDONMENT OF EQUIPMENT:

The lessee/operator is responsible for compliance and reporting regarding toxic and hazardous material and substances under Federal Law and all associated amendments and regulations for the handling of such materials on the land surface and in underground mine workings

The lessee/operator must remove mine equipment and materials not needed for continued operations, roof support and mine safety from underground workings prior to abandonment of mine sections. Exceptions can be approved by the Authorized Officer (BLM) in consultation with the surface management agency. Any on-site disposal of non-coal waste must comply with 30 CFR § 817.89 and must be approved by the regulatory authority responsible for the enforcement of the Surface Mining Control and Reclamation Act (30 U.S.C. 1201, et seq.). Creation of a situation that would prevent removal of such material and equipment by retreat or abandonment of mine sections without prior authorization would be considered noncompliance with lease terms and conditions and subject to appropriate penalties under the lease.

All safe and accessible areas shall be inspected prior to being sealed. The lessee shall notify the Authorized Officer in writing 30 days prior to the sealing of any areas in the mine and state the reason for closure. Prior to seals being put into place, the lessee shall inspect the area and certify through documentation any equipment/machinery, hazardous substances, and used oil that is intended to be left underground. The Authorized Officer may participate in this inspection. The purpose of this inspection will be: (1) to provide documentation for compliance with 42 U.S.C. 9620 section 120 (h) and State Management Rule R-315-15, and to assure that certification will be meaningful at the time of lease relinquishment, (2) to document the inspection with a mine map showing location of equipment/machinery (model, type of fluid, amount remaining, batteries etc.) that is proposed to be left underground. In addition, these items will be photographed at the lessee's expense and shall be submitted to the Authorized Officer as part of the certification.

WASTE CERTIFICATION:

The lessee shall provide on a yearly basis and prior to lease relinquishment, certification to the lessor that, based upon a complete search of all the operator's records for the mine and upon their knowledge of past operations, there has been no hazardous substances defined as per (40 CFR 302.4) or used oil as per Utah State Management Rule R-315-15, deposited within the lease, either on the surface or underground, or that all remedial action necessary has been taken to protect human health and the environment with respect to any such substances remaining on the property. The back-up documentation to be provided shall be described by the lessor prior to the first certification and shall include all documentation applicable to the Emergency Planning and Community Right-to-know Act (EPCRA), Public Law 99-499, Title III of the Superfund Amendments and Reauthorization Act of 1986 or equivalent.

Stipulation #20.

Notwithstanding the approval of a resource recovery and protection plan by the BLM, lessor reserves the right to seek damages against the operator/lessee in the event (1) the operator/lessee fails to achieve maximum economic recovery [as defined at 43 CFR § 3480.0-5(21)] of the recoverable coal reserves or (2) the operator/lessee is determined to have caused a wasting of recoverable coal reserves. Damages shall be measured on the basis of the royalty that would have been payable on the wasted or unrecovered coal.

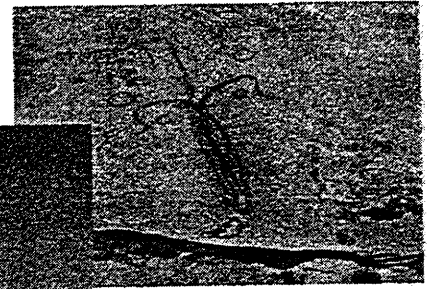
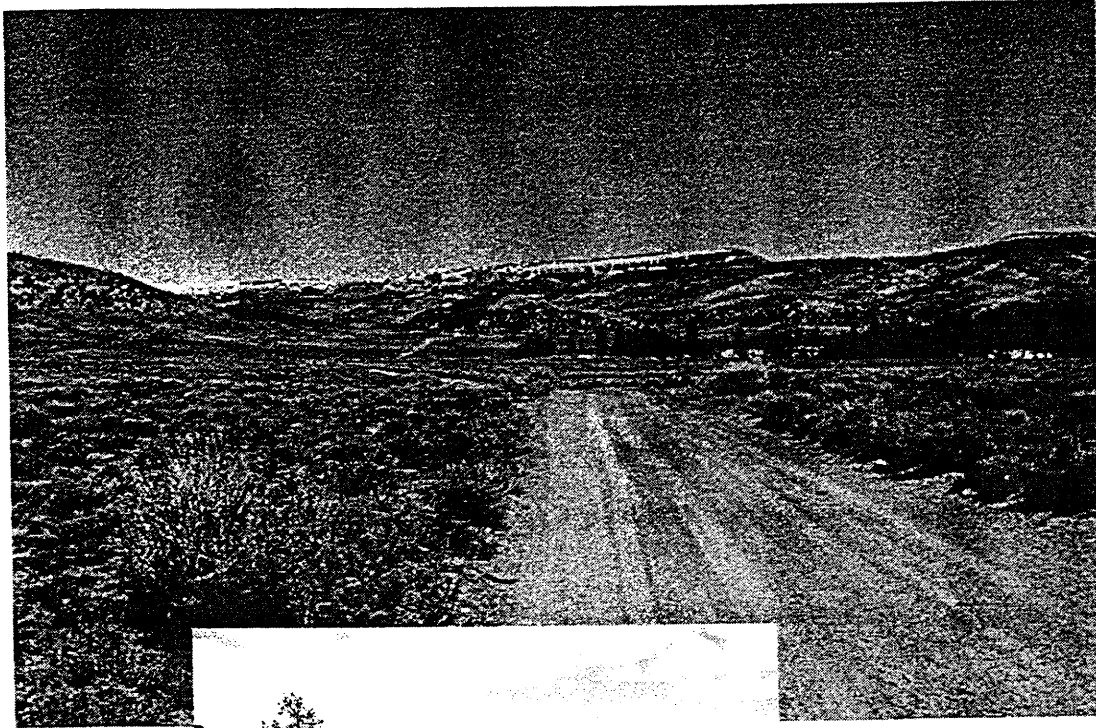
The parties recognize that under an approved R2P2, conditions may require a modification by the operator/lessee of that plan. In the event a coal bed or portion thereof is not to be mined or is rendered unminable by the operation, the operator shall submit appropriate justification to obtain approval by the Authorized Officer to leave such reserves unmined. Upon approval by the Authorized Officer, such coal beds or portions thereof shall not be subject to damages as described above. Further, nothing in this section shall prevent the operator/lessee from exercising its right to relinquish all or a portion of the lease as authorized by statute and regulation.

In the event the Authorized Officer determines that the R2P2 as approved will not attain MER as the result of changed conditions, the Authorized Officer will give proper notice to the operator/lessee as required under applicable regulations. The Authorized Officer will order a modification if necessary, identifying additional reserves to be mined in order to attain MER. Upon a final administrative or judicial ruling upholding such an ordered modification, any reserves left unmined (wasted) under the plan will be subject to damages as described in the first paragraph under this section.

Subject to the right to appeal hereinafter set forth, payment of the value of the royalty on such unmined recoverable coal reserves shall become due and payable upon determination by the Authorized Officer that the coal reserves have been rendered unminable or at such time that the lessee has demonstrated an unwillingness to extract the coal.

The BLM may enforce this provision either by issuing a written decision requiring payment of the MMS demand for such royalties, or by issuing a notice of non-compliance. A decision or notice of non-compliance issued by the lessor that payment is due under this stipulation is appealable as allowed by law.

Aaron



PINES TRACT PROJECT

Record of Decision



January 28, 1999



RECORD OF DECISION

PINES TRACT PROJECT FINAL ENVIRONMENTAL IMPACT STATEMENT (FEIS)

USDA Forest Service, Region Four
Manti-La Sal National Forest
Emery and Sevier Counties, Utah

I. INTRODUCTION

A. Decisions To Be Made/Authorities

This Record of Decision (ROD) documents findings specific to three separate actions related to leasing and development of Federal coal reserves on National Forest System Lands administered by the Manti-La Sal National Forest (MLS) analyzed in the Pines Tract Project Final Environmental Impact Statement (FEIS). This ROD documents my decisions including terms and conditions of any consent, for the Bureau of Land Management, Utah State Office (BLM) to lease lands on the MLS for underground coal mining. It also documents my decision on whether or not to consent/concur for the Utah Division of Oil, Gas and Mining (UDOGM) to approve a proposal to amend an existing mine permit which proposes mining under a perennial drainage.

The BLM participated in the analysis as a jointly-responsible agency. The Utah State Director (BLM responsible official) will document his respective decisions on the Pines Tract Project FEIS in a separate and distinct ROD.

With this ROD, I am making the following decisions as discussed on pages 1-10 and 1-11 of the FEIS:

1. Whether or not to consent to the BLM leasing the Pines Coal Lease Tract (UTU-76195), and bring forward conditions for the protection of non-mineral interests to be included in the lease terms. My consent to leasing by BLM is required under the Mineral Leasing Act of 1920, as amended by the Federal Coal Leasing Amendments of 1975 (MLA, as amended).
2. Whether or not to consent to the BLM modifying the existing Quitchupah Coal Lease (U-63214) by adding 150 acres of previously unleased land. My consent is required under the MLA, as amended.
3. Whether or not to consent/concur to mining that would cause subsidence of Box Canyon and the associated perennial stream and escarpments. Subsidence of Box Canyon is not currently authorized by lease stipulations or the mine permit. Special Coal Lease Stipulation #13 (Forest Plan Special Coal Lease Stipulation #9) allows subsidence of perennial streams and escarpments only at specifically approved locations. The current Permit Application Package (PAP)/Mine Plan and permit do not authorize mining that would cause subsidence of Box Canyon.

My consent/concurrence is required under the Federal Coal Leasing Amendments Act of 1975 prior to BLM authorizing subsidence of perennial streams and escarpments in the mine plan under provisions of Special Coal Lease Stipulation #13.

My consent/concurrence is required under the MLA, as amended, the Surface Mining Control and Reclamation Act of 1977, and enacting Federal Regulations. The Utah Coal Rules also require consent/concurrence of the Forest Service prior to approval of the PAP amendment by the Utah Division of Oil, Gas and Mining (UDOGM) on National Forest System lands.

I am the responsible Forest Service official for this project. The scope of my decisions are limited to the specific National Forest System Lands described in the FEIS and this ROD. The decisions I am making are site-specific. They are not programmatic and do not change Forest Plan direction for management of minerals or other resources in the Project Area.

B. Relationship Of This Action To Other Activities Within The Pines Tract Project Area

These decisions do not encompass all resource management practices that may occur within the Project Area. Previous environmental documents, past and ongoing activities, and reasonably foreseeable activities were identified and included in cumulative effects analyses presented in the FEIS. Future resource management proposals within the area would have to be considered on their own merits in subsequent decisionmaking.

II. OVERVIEW OF THE PROJECT AREA

The Project Area lies within the Ferron-Price Ranger District in Emery and Sevier Counties, Utah, about 6 miles northwest of the town of Emery. The Project Area encompasses about 7,600 acres of National Forest System lands with Federal coal. The Project Area is defined by the boundaries of the Pines Coal Lease Tract, the Quitchupah Lease Modification Area, and the Permit Amendment Area (Box Canyon Area) as indicated on Figure 1 and by the following legal descriptions:

Pines Coal Lease Tract (UTU-76195)

Township 20 South, Range 5 East, Salt Lake Baseline and Meridian (SLM)

Section 35, S $\frac{1}{2}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$, S $\frac{1}{2}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$

Section 36, W $\frac{1}{2}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$ SW $\frac{1}{4}$

Township 21 South, Range 5 East, SLM

Section 1, lots 3-4, S $\frac{1}{2}$ SW $\frac{1}{4}$, SW $\frac{1}{4}$ SE $\frac{1}{4}$

Section 2, lots 1-4, S $\frac{1}{2}$ S $\frac{1}{2}$

Sections 3, lots 1-2, S $\frac{1}{2}$ SE $\frac{1}{4}$

Sections 10, E $\frac{1}{2}$

Sections 11-14 all

Section 15, E $\frac{1}{2}$

Section 22, E $\frac{1}{2}$

Sections 23-24, all

Section 25, N $\frac{1}{2}$, N $\frac{1}{2}$ S $\frac{1}{2}$

Section 26, N $\frac{1}{2}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$, E $\frac{1}{2}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$

Township 21 South, Range 6 East, SLM

Section 19, lots 3-4, E $\frac{1}{2}$ SW $\frac{1}{4}$

Section 30, lots 1-3, E $\frac{1}{2}$ NW $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$

Quitchupah Lease Modification Area (U-63214)

Township 21 South, Range 5 East, SLM

Section 10, SE $\frac{1}{4}$ NW $\frac{1}{4}$, E $\frac{1}{2}$ SW $\frac{1}{4}$, E $\frac{1}{2}$ E $\frac{1}{2}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$, E $\frac{1}{2}$ E $\frac{1}{2}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$, E $\frac{1}{2}$ E $\frac{1}{2}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$

Permit Amendment Area (Box Canyon Area)

Township 21 South, Range 5 East, SLM

Section 15, W $\frac{1}{2}$

The following summarizes key attributes of the Project Area:

Geology/Topography: The area is a flat to rolling upland plateau with steeply incised canyons, with elevations ranging from 6,900 feet to 9,000 feet. The Castlegate sandstone forms the cap rock through much of the Project Area and the steep cliff escarpment surrounding the plateau. Where it is exposed, it forms the rim and walls of Box Canyon and the East Fork of Box Canyon (FEIS, page 3-12). Box Canyon, the East Fork of Box Canyon, Muddy Creek and Link Canyon dissect the plateau, creating impressive canyons. The drainages have formed steep-walled, narrow-bottomed canyons that have exposed sandstone escarpments. The escarpment cliff faces reach up to 200 feet in Box and the East Fork of Box Canyons, and up to 1,000 feet

in Muddy Canyon. Portions of the Project Area has exposed sandstone on the land surface. The streams in Box Canyon and the East Fork Box Canyon flow on the exposed sandstone bedrock (FEIS, page 3-63). The coal reserves present are part of the Wasatch Plateau coalfield (FEIS, page 3-11).

Groundwater and Surface Water Resources: Availability of water is a limiting factor in the Project Area (FEIS 3-182). Distribution of water resources is generally confined to the two small perennial drainages (Box Canyon and the East Fork Box Canyon) that originate within the Project Area (FEIS, page 3-57 and Figure 3-8). The majority of springs occur within these two drainages (FEIS, Figure 3-4). Eight stock ponds have been developed to aid in providing water for wildlife and livestock on the grazing allotments that overlap the Project Area (FEIS, Figure 3-8 and page 3-182). The available live water sources (i.e. springs seeps, perennial drainages) are vital for wildlife, livestock and riparian vegetation and habitat (FEIS, page 3-96, Figure 3-11, page 3-111 to 112, and page 3-182).

Vegetation and Special Status Species: The Project Area supports nine vegetation communities: grassland-perennial forb, sagebrush, mountain brush, conifer timber, aspen/deciduous forest, pinyon/juniper woodland, riparian, a mixed type, and barren ground (FEIS page 3-92 and Figure 3-10). The primary vegetation community is a conifer timber forest of ponderosa pine, white fir and Douglas-fir which is unlike other areas on the MLS. In general, the vegetation communities are dispersed across the Project Area, except that riparian vegetation is mainly confined to the perennial stream corridors and locations of seeps and springs (FEIS, page 3-62, 3-96 and Figure 3-11).

A sensitive plant species known to occur in the Project Area is the Link Canyon columbine. Three confirmed populations of the Link Canyon columbine have been found in the Project Area associated with wet areas at the heads of Link Canyon and Box Canyon (FEIS, page 3-66 and 3-133). A fourth unconfirmed population may also be present at a rock shelter site in the East Fork of Box Canyon (project file).

Wildlife and Special Status Species: Elk are the most abundant big game species and are a Forest management indicator species (FEIS, page 3-107). The Project Area hosts winter range for a part of the Manti Elk Herd, the largest in the state of Utah. Sage grouse were once abundant in the area, but populations have declined. Sage grouse are dependent on springs and riparian areas in the Project Area for brood habitat (FEIS, page 3-111). Macroinvertebrates are also a Forest management indicator species and are present at the water sources in the Project Area (FEIS, page 3-112). There are no known fisheries within the Project Area. However, there are fish below the Project Area in lower Box Canyon and Muddy Creek (FEIS, 3-112).

The bald eagle, a threatened species, may occur in the Project Area as a transient species. No roost sites have been found in the Project Area (FEIS, page 3-130). An eyrie for a peregrine falcon, an endangered species, has been found near the Project Area and the nesting pair may forage in portions of the Project Area (FEIS, page 3-130). Suitable habitat for the southwest willow flycatcher, also an endangered species, is present but it's confirmed presence and use are undetermined at this time. A species of willow flycatcher has been found on the MLS, but it is undetermined if it is the southwest willow flycatcher. DNA testing is on-going at this time (FEIS, page 3-131). The drainages in the Project Area are part of the Colorado River Basin which is habitat for four endangered fish species: the humpback chub, the bonytail chub, the razorback sucker, and the Colorado squawfish. Critical habitat for these species are large rivers, which do not occur in the Project Area (FEIS, page 3-131 and 132). Sensitive species known, or suspected to occur within the Project Area include the spotted bat, Northern goshawk, flammulated owl, and three-toed woodpecker (FEIS, pages 3-136 to 3-139).

Cultural/Paleontological Resources: The Project Area is noted for containing many significant archaeological sites, several of which have been determined to be eligible for listing in the National Register of Historic Places (FEIS, Table 3.7). These sites include rockshelters and surface artifact scatters containing chipped stone artifacts, groundstone artifacts, firehearths and other features associated with prehistoric occupation of the area. The sandstone outcrops in the stream canyons frequently form rock overhangs which were used by prehistoric peoples as shelters. Diagnostic artifacts and recent research at nearby sites provide evidence for long-term occupation of the Project Area possibly beginning in the Paleoindian Period (ca. 7,500 to 11,500 years ago) to the Protohistoric Period (after A.D. 1300). Only minor paleontological resources exist in the Project Area (FEIS, page 3-168).

Land Use/Recreation: Existing land uses include underground coal mining, timber production, transportation corridors, livestock grazing, wildlife habitat and dispersed recreation (FEIS, page 3-171). The main recreational opportunity in the area is big game hunting. To a lesser extent, the area is used for hiking, dispersed camping and sight-seeing. Two Roadless Area Review and Evaluation (RARE) II areas were inventoried in the Project Area in the late 1970s (FEIS, page 3-175). These areas were not designated as wilderness under the Utah Wilderness Act of 1984 and were not classified for roadless or semi-primitive recreation management under the Forest Plan in 1986.

Range: The Project Area overlaps with a grazing allotment that supports 1,387 head of cattle early in the grazing season. Eight ponds have been developed in the Project Area for livestock distribution, which also benefit wildlife. The Link Canyon Troughs and the Joes Mill Ponds (FEIS, Figure 3-17) are the most reliable water sources in the Project Area (FEIS, page 3-182).

Visual Resources/Noise/Air Quality: The majority of the Project Area is designated as middleground viewed, medium sensitivity level, minimal variety class, and is considered natural and undisturbed (FEIS, page 3-195). The Castlegate sandstone escarpments form a visual resource in the area. Since the Project Area is remote, the nearest noise receptors are about seven miles away, in the town of Emery (FEIS, page 3-204). The Project Area is a higher elevation airshed that experiences excellent air quality (FEIS, page 3-228).

Transportation: Road construction and historic timber harvest have occurred within the Project Area. Established road systems in the area are managed and maintained as forest development roads open to the public (FEIS, Figure 3-27). These roads are generally single-lane native surface roads, passable during the drier months of the year with high clearance vehicles. Some of these roads are closed to motorized vehicles during the general hunt to reduce stress to the elk herd. The forest development roads connect with local roads that access the major highways (FEIS, pages 3-233 to 3-236).

Socioeconomics and Coal Recoverability: Coal mining on the Wasatch Plateau is important to the local and State economies (FEIS, section 3.14).

III. NEED FOR ACTION

The Purpose and Need for this project are to: 1) consider leasing additional Federal coal lands to allow economic recovery of coal reserves, 2) consider allowing recovery of additional coal reserves previously not authorized due to other resource concerns, 3) determine the conditions under which coal reserves may be recovered to provide protection for non-coal resources while allowing optimum economic recovery, and 4) evaluate potential environmental consequences of leasing additional Federal coal lands for underground coal resource development (FEIS, page 1-2). The project was undertaken by the Forest Service and BLM after Canyon Fuel Company submitted applications to access coal reserves in the Project Area for development through their existing SUFCO mine. Detailed discussions on the application and leasing processes are given in Section 1.3 of the FEIS (pages 1-3 to 1-10).

IV. SUMMARY OF ALTERNATIVES CONSIDERED

I considered three "action" alternatives and the "No Action alternative." These four alternatives encompass a reasonable and complete spectrum of possible decisions that range from no leasing/mining to mining all recoverable reserves with no special stipulations for the protection of non-mineral interests. This comprehensive range of actions allows me to understand and select portions of each alternative as necessary to provide coal reserves and protect specific areas and resources of the National Forest System lands.

Because coal lease tracts are offered through a competitive bid process, the analysis in the EIS considered the environmental consequences of a company other than the applicant being granted the Pines Federal Coal Lease Tract. As such, the FEIS analyzes the effects of Reasonably Foreseeable Development Scenarios (RFDS) for the Project Area. One of the development scenarios considered was eliminated from detailed evaluation because of

environmental and operational constraints as discussed in Section 2.5 of the FEIS (page 2-18). Chapter 2 of the FEIS contains a complete description of the alternatives and process used to identify them. Following is a summary of the alternatives considered in detail.

Alternative A, No Action Alternative - No Lease Alternative/No Subsidence of Box Canyon

Purpose/Design:

The No Action alternative is required by the National Environmental Policy Act (NEPA). Under the No Action/No Lease alternative, no mining would take place within the Pines Coal Lease Tract. The tract would not be leased at this time. The SUFCO mine would continue to mine under its existing Quitchupah Lease. In addition, mining would be conducted in a manner to prevent subsidence under Box Canyon and no modification of the Quitchupah Lease would occur. Effects from on-going land uses in the Project Area would continue at present levels. No mitigation measures or monitoring would be required other than meeting Forest Plan direction, standards and guidelines (FEIS, page 2-14). This alternative is consistent with the Forest Plan.

Alternative B - Lease the Proposed Area with Standard BLM Lease Terms and Conditions

Purpose/Design:

This alternative addresses the portions of the Project Area that are currently "unleased" Federal coal lands (i.e. the Pines Federal Coal Lease Tract and the 150-acre Lease Modification Area for the existing Quitchupah Lease, see FEIS, Figure 2-1). The Pines Coal Lease Tract would be leased at this time. This alternative assumes the leases would be issued with the Standard BLM Lease Terms and Conditions on BLM Form 3400-12 (April 1996) Sections 1 to 14. This alternative does not include application of the Special Coal Lease Stipulations (SCLS) for protection of non-coal resources (Section 15 Special Stipulations, on the BLM Form).

This alternative is intended to provide a comparison to including the SCLS for protection of non-coal resources in Alternatives C and D. The SCLS would be added to Alternatives C and D as a means of avoiding and mitigating impacts. The development scenario assumes that all mineable coal would be recovered to the fullest extent using currently accepted industry practices. Alternative B could result in potential environmental impacts within the Project Area that could exceed Forest Plan thresholds and would therefore be inconsistent with the Forest Plan (FEIS, page 2-14).

About 74.4 million tons (MT) of coal could be recovered under this alternative (FEIS, Table 3.26).

Alternative C - Lease the Proposed Areas with Standard BLM Lease Terms and Conditions, with Special Coal Lease Stipulations for Protection of Non-Coal Resources (which would not allow subsidence of escarpments and perennial drainages in the analysis area). *The environmentally preferred alternative is Alternative C.*

Purpose/Design:

This alternative addresses application of Standard BLM Lease Terms and Conditions along with application of SCLS for the protection of non-coal resources. Specifically, it addresses issues identified through application of the 18 SCLS presented in the Forest Plan that are designed to lessen anticipated environmental effects, plus two additional stipulations. This alternative encompasses the entire Project Area (see FEIS, Figure 2-2). This alternative is consistent with the Forest Plan.

This alternative assumes that full extraction mining would occur in the majority of the Project Area. Mining that would cause subsidence would not be allowed under where perennial drainages and escarpments occur. Specifically, no mining that would cause subsidence would be allowed under the

perennial streams and escarpments in Box Canyon or the East Fork of Box Canyon, or under the escarpments in Wiley's Fork and Link Canyon (FEIS, page 2-16).

About 62.4 MT of coal could be recovered under this alternative (FEIS, Table 3.26).

Alternative D - Lease the proposed areas with Standard BLM Lease Terms and Conditions, and Special Coal Lease Stipulations for Protection of Non-Coal Resources, allowing subsidence of perennial drainages and escarpments in the analysis area.

Purpose/Design:

This alternative provides for mining that could cause subsidence to occur under perennial drainages and escarpments as long as it would be consistent with laws, regulations and Forest Plan direction. This alternative includes full extraction longwall mining under perennial drainages and escarpments within the Project Area. Specifically, this alternative allows mining that would cause subsidence under Box Canyon and the East Fork of Box Canyon. The current SCLS 9 from the Forest Plan (Appendix B, page B-2) would not be in effect in the lease terms and conditions. Alternative D is consistent with the Forest Plan assuming that the effects would be consistent with Forest Plan direction, and the perennial streams in Box Canyon and the East Fork of Box Canyon and escarpment areas are designated as specifically approved locations for subsidence (FEIS, page 2-16). This alternative encompasses the entire Project Area (FEIS, Figure 2-2).

About 76.6 million tons of coal could be recovered under this alternative (FEIS, Table 3.26).

V. SUMMARY OF PUBLIC INVOLVEMENT

Public scoping for the Pines Tract Project began on October 16, 1997. A Notice of Intent (NOI) to prepare an environmental impact statement (EIS), initiating the formal 30-day scoping period, was published in the *Federal Register* on January 29, 1998. Scoping letters were sent to parties on the project mailing list on February 3, 1998. Legal Notice of the project was published in the MLS's newspaper of record, *Sun Advocate*, on February 5, 1998. Legal Notice of the project was also published in supplemental papers (*Emery County Progress*, February 10, 1998; *Richfield Reaper*, February 11, 1998). A revised NOI, further describing the project, was published in the *Federal Register* on April 14, 1998. Two verbal comments and sixteen written comment letters were received in response to these efforts. These comments have been considered and incorporated into the planning process as documented in the Draft Environmental Impact Statement (DEIS) (i.e. identification of issues, alternative development, disclosure of effects). Discussion on public involvement are included in Sections 2.1 and Chapter 4 of the FEIS.

The notice of availability of the DEIS was published in the *Federal Register* on September 25, 1998. Thirteen comment letters were received. The FEIS Appendix E presents all comment letters received and agency responses.

VI. DECISIONS

I have decided to select a combination of Alternatives C and D as further detailed in this section. The components of Alternative C which I am selecting are the provisions that protect perennial streams from mining that would cause subsidence. I am selecting the portion of Alternative D that will allow mining that would cause subsidence to occur under certain escarpments in the Project Area. This decision required careful consideration and balance of environmental protection and coal resource recovery.

I recognize that this decision will not satisfy the needs of all interested parties. Given the Forest Service mission of being stewards of the soil, air and water resources, it is incumbent upon me to adhere to the direction given by national policy, agency mission and Forest Plan guidance when making my decisions. I believe that this decision best balances the need to preserve and protect the integrity of the perennial stream watersheds and associated

ecosystems present while recovering the mineral resources. My decisions would result in the recovery of at least 62.4 million tons of coal.

The basic premise of Alternative C is to protect perennial drainages and escarpments in the Project Area from subsidence. However, my decision includes allowing subsidence of most escarpments in the Project Area because analysis presented in the FEIS shows that risks to escarpments are low (FEIS, pages 3-22 to 23, 3-195 to 196). Figure 1 shows the areas identified for protection.

Specifics of my decisions are detailed below.

- A. I consent to the BLM leasing the Pines Coal Lease Tract. My consent is conditioned on inclusion of stipulations derived in part from the Forest Plan, as detailed in Appendix D of the FEIS, and upon ensuring that subsequent mining will meet the performance standards of the applicable mining regulations. Specific terms and conditions of my consent are given in items 1 and 2 below.

1. For the perennial streams in Box Canyon and the East Fork of Box Canyon, Alternative C is the selected alternative. Stipulation 9 from the Forest Plan will be implemented, thus these streams will be protected from mining that would cause subsidence. However, I do consent to full-support mining under perennial and perennially-functioning stream reaches where the separation (overburden thickness) between the stream elevation and the elevation of mining is more than 600 feet.

I do not consent to any mining, other than for development entries, where the overburden is less than 600 feet. This is based on guidance given by the Society of Mining Engineers (1992) which recommends maintaining a "60 times the mining height" separation between mine workings and surface water bodies (project file). Given the expected extraction heights in the Project Area this would be about 600 feet.

Specific stream reaches to be protected from subsidence include: i) Box Canyon and perennial portions of it's branches in the Permit Amendment Area, and ii) the East Fork of Box Canyon, including the southwest fork up to and including Joes Mill Ponds. The stream reaches under which no mining will be allowed due to shallow overburden are the lower portions of the East Fork of Box Canyon including the confluence area with the Main Fork of Box Canyon. Refer to Figure 1 of this ROD for areas to be protected.

2. For most escarpments in the Project Area, Alternative D is the selected alternative which allows subsidence. However, the following escarpment areas will be protected from mining that would cause subsidence:
 - a. The escarpment area known as the "grotto" (natural pond/alcove) at the head of Box Canyon in the Main Fork (see FEIS, Figure 3-4) will be protected from mining that would cause subsidence.
 - b. The escarpment area forming the Elusive Peacock rock shelter, along the East Fork of Box Canyon, identified as being near the location of spring 214 (see FEIS, Figure 3-4) will be protected from mining that would cause subsidence.
 - c. Subsidence of other areas containing rockshelters and/or other significant National Register eligible or potentially eligible sites will be contingent upon completion of a three-party agreement between the Utah State Historic Preservation Office (USHPO), Advisory Council on Historic Preservation and MLS specifying data recovery and mitigation plans. The MLS, USHPO and the Advisory Council on Historic Preservation have concurred previously that subsidence effects to these sites can be mitigated through implementation of a three-party agreement for data recovery and mitigation prior to mine plan approval (USHPO and Advisory Council letters dated August 24, 1998 and September 22, 1998, respectively).

- d. I do not have the authority to allow subsidence that may result in the "taking" of an active or inactive raptor nest. Therefore, subsidence of escarpments which contain active and inactive raptor nests will be allowed contingent upon the successful lessee consulting with the US Fish and Wildlife Service and obtaining a "take permit" from that agency.
- B. I consent to the BLM modifying the Quitchupah Lease by adding 150-acres. The existing stipulations on that lease will apply to the modification area.
- C. I do not consent to the Utah Division of Oil, Gas and Mining (UDOGM) approving the Permit Amendment Package to subside Box Canyon. I am choosing not to exercise the provision in Stipulation 13 on the existing Quitchupah Lease (stipulation 9 from the Forest Plan) that would authorize subsidence of the perennial stream in Box Canyon.

VII. RATIONALE FOR THE DECISION

My decisions are based upon several criteria, some of which are summarized in this section.

A. Consistency With Forest Plan Goals, Objectives, And Standards

I evaluated each alternative analyzed and compared them to Forest Plan goals, objectives, standards, and guidelines for the Project Area. Several considerations pertaining to Forest Plan consistency are reflected in my decision and are detailed below. My decision is consistent with the Forest Plan.

Consistency with Multiple Use Management Unit Direction. Multiple use management units and direction designated in the Forest Plan for the Project Area (Forest Plan, pages III-64 to III-76) include timber, range, leasable mineral development, general big game winter range and riparian maintenance (FEIS, page 3-1 and 2).

The timber unit emphasizes wood-fiber production and harvest, allowing other uses so long as the use or rehabilitation returns the area to a condition that is in harmony with the timber emphasis. No timber activities are foreseen for the Project Area (FEIS, Appendix B).

The range unit emphasizes the production of forage and cover for wildlife and livestock, with specific direction for minerals activities to assure continued access and use, and replace losses through appropriate mitigations. The application of the SCLS in Alternatives C and D require replacement of water at the source (SCLS 17, FEIS, Appendix D) that would mitigate any loss of water from stock ponds that might occur (FEIS, page 3-185). Additional mitigations for access would also be required (FEIS, page 3-190 to 191).

The leasable mineral unit emphasizes development of the mineral resources while allowing other resource uses. The Project Area is part of the Quitchupah Pines Coal Multiple Use Evaluation Area, and the Forest Plan makes it available for further consideration for coal leasing (Forest Plan, page Appendix C, page C-9, no. 6, and FEIS, page 1-2). This NEPA analysis was performed to further consider it.

The general big game winter range unit emphasizes maintaining areas that wildlife traditionally use in winter. Other uses may occur so long as they do not cause unacceptable stress on wildlife. The analysis showed minimal impacts to big game winter range (FEIS, page 3-114).

The riparian unit emphasizes management of riparian area and their component ecosystems. The goals of management are, in part, to maintain water flows to provide free and unbound water within the soil needed to create the distinctive vegetation community, provide healthy self-perpetuating plant communities and provide habitats for viable populations of wildlife and fish. With specific regard to mineral management activities, the Forest Plan calls to, "avoid and mitigate detrimental disturbance to the riparian area . . . and, where possible, to

locate mineral activities outside the riparian unit . . ." The bulk of riparian habitat is associated with the stream corridors in the Project Area (FEIS, page 3-62, 3-96 and Figure 3-11) that provide habitat for a variety of species during their life cycle (FEIS, pages 3-107 to 3-112). My decision to not allow subsidence the perennial streams and associated riparian habitat responds to the direction for riparian unit management.

Application of Special Coal Lease Stipulations. The Forest Plan also requires the application of the Special Coal Lease Stipulations designated in Appendix B of the Forest Plan to coal leases as necessary to minimize impacts to non-coal resources (FEIS, Appendix D). Both Alternatives C and D include these stipulations, therefore the selection of a combination of Alternatives C and D is consistent with Forest Plan direction. Alternatives C and D contain Stipulation 9 that states in part, "Except at specifically approved locations, underground mining operations shall be conducted in such a manner so as to prevent surface subsidence that would: 1) cause the creation of hazardous conditions such as potential escarpment failure and landslides; . . . [a]nd 3) damage or alter the flow of perennial streams." However, Alternative D carries the provision for authorizing subsidence in specific areas of the Pines Coal Lease Tract.

Should subsidence of perennial streams be authorized, there is a high potential for subsidence-induced cracking, both of a temporary and of a more permanent nature, to occur in the stream channels. The stream channels flow across exposed bedrock that is highly susceptible to this cracking (FEIS, page 3-63 and sections 3.1, 3.2 and 3.3). Potential outcomes of cracking include diversion of some or all flow in the streams and dewatering of alluvial and colluvial deposits (FEIS, pages 3-47, 3-70 to 79). Flow diversion or dewatering may stress the health of riparian vegetation, which in turn translates to a reduction in the function and value of riparian habitat (FEIS, pages 3-99 to 104, and 3-113 to 3-119). Duration of these effects and the time for self-healing has been estimated at up to 2 years (FEIS, pages 3-70, 3-75, 3-101, and 3-113) assuming that normal natural conditions persist, but may be longer based on season, climate cycle and crack morphology (FEIS, page 3-48, pages 3-70 to 71, Appendix E, Response to comment J-11). These estimations are theoretically based on professional opinions, and there remains some disagreement between the resource specialists of the MLS, BLM and third party contractor regarding the effects and their duration. Attempts to seal subsidence cracks at Rock Pond and associated ephemeral drainage have been marginally successful (FEIS, page 3-19). Given this information, it would be irresponsible of me to allow jeopardizing the integrity of the perennial streams, and knowingly allow damage to these resources to occur.

The analysis shows that there is minimal risk to escarpments (FEIS, page 3-22 to 3-23), associated vegetation (FEIS, 3-101) and wildlife habitat (FEIS, page 3-114), visual quality (FEIS, 3-195), pose minimal risk to human safety (FEIS page 3-178). Therefore, I believe the risk associated with escarpment failure is low.

My selection of a combination of Alternatives C and D protecting the perennial streams and their associated riparian zones and habitat in the Project Area from damage due to subsidence is consistent with, and supported by direction of the Forest Plan. Further, my decision to exercise the provision of Stipulation 9 and authorize escarpment failure at specifically approved locations is also supported by the Forest Plan.

B. Relationship To Purpose And Need

My decisions respond to the need to consider leasing additional Federal coal lands (FEIS, page 1-2), and to the need to allow coal resource development. My decisions also determine the conditions under which coal resources may be recovered in order to protect non-coal resources. My decisions also respond to the need for the applicant (Canyon Fuel Company, LLC) to access additional reserves to extend mine life, remain competitive in the current coal market and maintain their current contracts.

C. Relationship To Issues And Public Comments

I selected a combination of Alternatives C and D because I feel that it best balances coal recovery with protection of National Forest resources and resource uses consistent with the applicable laws, regulations, Forest Service policy, and Forest Plan goals and objectives; standards and guidelines; and multiple-use decisions. Even though my decisions do not allow mining that would cause subsidence of perennial stream and some escarpment areas,

they do not preclude the opportunity to mine using full-support mining methods or access to adjacent coal reserves for mining by some accepted mining method.

The following discussions explain how I considered the FEIS issues in making my decisions. The discussions are presented by resource categories rather than by individual issue, but each issue is addressed. A list of the issues by resource category is found on pages XVIII to XXIV of the FEIS Executive Summary and pages 2-2 to 2-8 of the FEIS.

Geology, Topography and Subsidence: An inventory of geologic features in the Project Area was completed. No natural bridges or arches were found, but the Project Area contains extensive escarpments and alcoves. Perennial drainages have carved deep canyons through the massive Castlegate Sandstone forming the canyon walls or escarpments. Several alcoves occur in these canyon/escarpment areas.

My decisions will allow subsidence of escarpments and geologic structures with exceptions as described in Section VI of this ROD. My decisions allow subsidence of escarpments and mining-induced failures of escarpments in most areas, but protects escarpments from subsidence where I have determined that there are resources that I am not willing to put at risk regarding mining-induced damage. By protecting these identified areas and structures from potential mining-induced damage, I believe that I am preserving the most important and unique sites that characterize the geology of the area.

Groundwater and Surface Water Resources: The key water resources in the Project Area, seeps, springs occur within the canyons shared by the perennial streams (see Section II). My decisions involve protecting the water resources from potential impacts of subsidence. I believe that I have taken the reasonable approach to maintaining the availability and function of these key water resources for maintaining the ecosystem and supporting downstream uses.

Vegetation and Special Status Species: The overall lowering of the land surface due to subsidence would not affect the overall health and distribution of the terrestrial plant communities present (FEIS, page 3-99). However, diversion of water could affect riparian vegetation. Since most of the riparian vegetation is associated with the stream corridors (see Section II), my decision to protect the perennial drainages also protects the viability of the riparian communities.

By protecting the grotto site from subsidence, one known population of Link Canyon columbine in the Project Area will be protected (see Section II and VI, item 2 (a)).

Wildlife and Special Status Species: The primary concerns for wildlife include potential reduction of habitat resulting from water diversion. I believe my decision minimizes the risk for reducing habitat by maintaining the key water resources. It also ensures that live water sources will be available to support wildlife. Although effects to special status species are expected to be minimal, my decision further limits the potential for impacts. Again, the key concern is reduction of water availability and translated effects to habitat. Since the risk for losing habitat to escarpment failures is low (see Section VII, A), I am confident that my decision to allow some escarpments to be subsided will not adversely affect wildlife habitat.

Cultural/Paleontological Resources: Cultural resource inventories have been completed in the Project Area. Thirty four sites have been identified, 16 of which were considered ineligible and 10 were considered eligible for listing in the National Register of Historic Places. The remaining eight sites are unevaluated (FEIS, Table 3.7). Of the unevaluated and National Register-eligible sites, the National Register character of 10 sites could be affected by subsidence. The FEIS outlines site-specific measures that would be enacted to monitor/mitigate these impacts (FEIS, Table 3.11). The MLS, USHPO and Advisory Council have concurred that these measures could be implemented through an agreement among the USHPO, Advisory Council and MLS thereby protecting and/or mitigating any adverse effects to the National Register values of these sites (USHPO and Advisory Council letters dated August 24, 1998 and September 22, 1998, respectively). My selected alternative identifies specific escarpment areas that contain significant cultural resource sites that will be protected. This protection ensures the preservation for future research and knowledge base. Other sites

which could be damaged from subsidence will be recovered in conformance with all applicable laws and requirements.

Land Use/Recreation: Implementation of my decisions will have minimal impacts to existing land uses and existing recreation activities (FEIS, 3-177 to 178). My decisions are in concert with these findings. Pre-mining and post-mining land uses would remain the same.

Range: Inventories of the range improvements and range conditions were evaluated as part of this analysis. The primary range concerns are for the availability of water to support livestock and wildlife and maintaining access to the allotment. My decisions protect live water sources, and provide stipulations for replacement of water supplies if they are damaged due to mining activities (FEIS, Appendix D, stipulation 17). Maintaining access will also be required as a mitigation (FEIS, page 3-191). I believe that my decisions address the needs for keeping the range resources intact.

Visual Resources/Noise/Air Quality: Subsided and failed escarpments will appear natural and similar to the surrounding undisturbed environment (FEIS, page 3-196). I am confident that my decisions will not alter the visual quality of the Project Area. Impacts from noise from my decisions are expected to be minimal (FEIS, page 3-205). Affects to regional air quality from my decisions are estimated to be minimal (FEIS, page 3-223).

Transportation: Transportation needs and effects vary between all the alternatives based on coal production (FEIS, pages 3-236 to 3-241). My decisions are a middle ground between the highest level of transportation and the least. My decisions will provide continued access to the Project Area.

Socioeconomics and Coal Recoverability: I considered the economic effects when making my decisions, and I believe my decisions balance the need for environmental protection with recovery of the coal resource. That is why I am consenting to full-support mining under the streams to allow for some recovery of the coal and ensure access to other reserves, rather than rendering these completely unrecoverable. I am also consenting to subsidence of escarpments as described in Section VI of this ROD, which allows for coal recovery in those areas. It is estimated that my decisions would decrease the total recoverable reserves within the Project Area by about 14 million tons, or 18% of the total estimated recoverable reserve base of 76.6 million tons (FEIS, Table 3.26), given the conceptual longwall mining scenario. Since my decisions do not preclude full-support mining under the areas to be protected from subsidence and provides access to adjacent coal reserves for room-and-pillar or longwall mining, I believe my decisions reasonably allow for additional recovery of reserves.

F. Comparision of Alternatives

I also considered the differences between alternatives in making my decisions. Some of the pressing considerations between the alternatives and my decisions are summarized below.

Alternative A: This No Action alternative does not allow for additional leasing of coal lands in the Project Area, or make currently permitted lands with perennial streams available for full-extraction mining. The current mining operation would continue until the existing reserves were exhausted. This alternative would make about 76 million tons of coal unmineable at this time, equating to about \$1.5 billion worth of coal that would be foregone or reserved for future development.

Alternative B: Alternative B is not consistent with the Forest Plan because it does not include application of the SCLS for the protection of non-coal resources as required. Further, Alternative B only addresses the currently "unleased" lands, not the entire Project Area. For these reasons I have eliminated it from serious consideration for selection.

Alternative C: Alternative C is environmentally preferred because it best fulfills the six goals of NEPA, affords the best protection for water resources and associated riparian vegetation and habitat, and best meets the Forest Plan direction, agency policy and mandates of governing laws. This alternative provides protection for the key water sources in the area, although some effects to water sources at ponds and springs

may occur, lease stipulations will require water replacement if needed. I have selected that portion of Alternative C which protects perennial water resources from subsidence, but allows for full support mining.

The portions of the streams to be protected from subsidence are shown on Figure 1. In the DEIS, the upper portions of the East Fork of Box Canyon were considered perennially functioning (DEIS, pages xxxv and 3-61). Additional information submitted after the DEIS was released show that flow was observed close to the Joes Mill Ponds (Ayres and Associates, 1998). Joes Mill Ponds are the most reliable water sources for wildlife and livestock in the Project Area (FEIS, page 3-182).

Recovery of at least 82% of the recoverable coal resource is possible under this alternative. By allowing full support mining, the coal reserves under the streams will still be accessible and access to adjacent reserves that can be mined using full-extraction methods will be possible. This allows for both stream protection and some recovery of the coal reserves.

Alternative D: Alternative D affords maximum recovery of the coal resource. Some aspects of Alternative D are not consistent with the Forest Plan. Potential impacts to key water resources and associated ecosystems could occur contrary to the Forest Plan. Lease stipulations will also require water replacement if needed. Alternative D allows for subsiding escarpments which the analysis shows will have minimal impacts. Therefore, I have selected that portion of Alternative D which allows subsidence of most escarpment areas.

My rationale for protecting some of the escarpment areas described in Section VI. The area at the head of the Main fork of Box Canyon, known as the "grotto", is the only natural pond in the Project Area, and is a perennial source of water (see discussion in the FEIS, page 3-66 and Figure 3-8). This area supports one of the three known populations of the Link Canyon columbine (page 3-133). The rationale for protecting the Elusive Peacock rock shelter centers on the shelter being eligible for the National Register of Historic places, and considered a significant site due to it's potential research value. Existing data suggests that the site contains the potential to add important information to understanding how aboriginal peoples adapted their subsistence and technology to the mountains of Utah (project file). In-situ preservation of this site would assist future research efforts. Further, an unconfirmed population of the Link Canyon columbine has been noted at this site (project file). Assuming the mine plan in the Reasonably Foreseeable development Scenario, the situation of this site in proximity to reaches of perennial stream to be protected indicate that no additional coal would be lost by not allowing it to be subsided.

My decisions (a combination of Alternatives C and D) consider where I believe it is, or is not, appropriate to take risks with the surface resources, and recognize the need for recovery of the subsurface coal resource. The decision to protect the identified perennial stream reaches reflects the importance of perennial flow and the associated riparian zones for maintaining properly functioning ecosystems and my associated low risk threshold for these areas. In addition, I believe that the risk is relatively unknown due to the theoretical nature of predictions and some disagreement among scientists. My decision to allow most of the escarpments to subside reflects where I believe the anticipated affects and risks and effects would be minimal, and acceptable. The combination of alternatives C and D also allows for recovery of the coal with less economic loss than with Alternative C alone.

E. Relationship To The Organic Administration Act Of 1897

This act established the original purposes of National Forests as follows: "No national forest shall be established, except to improve and protect the forest within the boundaries, or for the purpose of securing favorable conditions of water flows, and to furnish a continuous supply of timber for the use and necessities of citizens of the United States; but it is not the purpose or intent of these provisions, or of the Act providing for such reservations, to authorize the inclusion therein of lands more valuable for the mineral therein, or for agricultural purposes, than for forest purposes". (16 U.S.C. 475)

In making my decisions, I have additionally considered why the MLS was created. The Manti Forest Reserve, which encompasses the Project Area, was designated in 1903 under authority of the Organic Administration Act as the result of local petition for protection of the area from land practices that were causing severe damage to

watershed conditions and public health and safety concerns. Considering the purposes for which the Manti Forest Reserve was established and the history regarding its establishment, I feel that it would be irresponsible of me to make any decisions that could compromise the existing favorable conditions of water flow (risk damage to perennial streams and associated ecosystems) within or adjacent to the Project Area. I feel that my decisions provide for reasonable and economic coal recovery while maintaining resource conditions as required under this act.

F. Relationship To The Forest Service Natural Resource Agenda

Additionally, when making my decisions, I considered the Forest Service's recent "natural resource agenda" (USDA-FS, 1998). The agenda states that the first priority of the Forest Service is to maintain and restore the health of ecosystems and watersheds. The agenda also gives watershed protection and ecological restoration the highest priority in the decisionmaking process. My decision to protect the perennial stream watersheds and the riparian ecosystems in the Project Area is in concert with the tenets of the natural resource agenda. I consider it my responsibility to ensure that the agenda is adhered to on lands within the MLS.

VIII. FINDINGS REQUIRED BY LAW, REGULATION, AND AGENCY POLICY

Numerous laws, regulations, and agency directives require that my decisions be consistent with their provisions. I have determined that my decisions are consistent with all laws, regulations, and agency policy; some of which I have summarized in the following.

A. National Forest Management Act (16 USC 1600 et seq.): The Manti-La Sal National Forest Land and Resource Management Plan (Forest Plan) was approved November 5, 1986, as required by this Act. The Forest Plan provides direction and guidance for all resource management activities on the Forest. This management direction is achieved through the establishment of Forest goals and objectives, standards and guidelines, and Management Unit direction. Project implementation consistent with this direction is the process by which we move toward the desired condition described by the Forest Plan. Forest Plan direction provides the sideboards for project planning. The FEIS displays the Forest Plan and Management Unit goals and objectives and the standards and guidelines applicable to the Pines Project Area (FEIS, pages 1-2 and 3, and 3-1 and 2). The alternative development process and the management goals of the alternatives are described in the FEIS, Chapter 2, while the environmental consequences of the alternatives are displayed in the FEIS, Chapter 3. My decisions are consistent with Forest Plan direction.

B. Federal Land Policy and Management Act of 1976: This Act allows the granting of land use permits on National Forest System lands. The regulations at Code of Federal Regulations Title 36 part 251 (36 CFR 251) guide the issuance of permits under this act. Land use permits are granted on National Forest System lands when the need for such is consistent with planned uses. My decisions are consistent with this Act.

C. National Environmental Policy Act of 1969 (NEPA) The analysis in support of my decisions was performed under the authorization and regulations set forth in NEPA. Due NEPA process was followed including public scoping, identification of issues, development of alternatives, disclosure of environmental consequences, and public comment. The entirety of documentation for this project supports compliance with this Act.

D. Mineral Leasing Act of 1920, as Amended by Federal Coal Leasing Amendments Act of 1975: The proposed leasing actions of the proposed action were processed and analyzed in accordance with the Mineral Leasing Act 1920, as amended by the Federal Coal Leasing Amendments act of 1975 and other acts. The Mineral Leasing Act authorizes BLM to process, issue, and administer coal leases in accordance with other appropriate laws, regulations and authorities. It requires consent of the surface management agency for leasing and provides for the surface management agency to require such conditions as it may prescribe with respect to the use and protection of the non-mineral interests in those lands. In regard to the proposed actions, the Forest Service is the surface management agency. My decisions are consistent with these authorities.

E. Surface Mining Control and Reclamation Act of 1977 (SMCRA): The proposed PAP amendment was processed and evaluated in accordance with SMCRA and the subsequent Federal Regulations and approved Utah

Coal Rules. In combination, they authorize UDOGM to approve minor PAP amendments on Federal lands if determined to be consistent with performance standards. They also authorize UDOGM to administer/enforce approved coal mining operations on Federal lands with prior consent/concurrence of the surface management agency and conditions prescribed by the surface management agency for the protection of non-mineral interests. The proposed actions lie on National Forest System lands with Federal coal reserves. The Forest Service is the surface management agency. My decisions are consistent with these authorities.

F. Unsuitability Criteria for Coal Development: Federal regulations in 43 CFR 3461 state that 20 "unsuitability criteria" must be used to determine the suitability of lands for coal leasing. The Forest Plan applied the criteria to all lands containing mineable coal on the MLS, but required that site-specific application be done on a project by project basis. The unsuitability criteria were applied to the unleased lands in the Project Area, and documentation is contained in the project file. The findings were as follows: Criteria 1, 2, 3, 6, 12, 16 were found to be not applicable because the criteria do not exist in the Project Area. Criteria 4, 5, 8, 14, 17, 18, 19 and 20 were addressed in the Forest Plan as not applicable because these lands do not exist on the MLS (Forest Plan, Table C-2). Exceptions apply to criteria 7, 9, 10, 11, 13 and 15. Detailed information pertaining to special status species was covered in a Biological Assessment/Biological Evaluation (project file). My decisions are consistent with application of the unsuitability criteria.

G. The Endangered Species Act (16 USC 1531 et. seq.): In accordance with Section 7 (c) of the Endangered Species Act, as amended, a list of the listed and proposed threatened or endangered species which may be present in the Pines Project Area was requested from the US Fish and Wildlife Service (USFWS). The information provided indicated that bald eagle and peregrine falcon are transient species within the area. It was also identified that suitable habitat for the southwest willow flycatcher is present in the Project Area. Any water withdrawals from this project will be minor, and will be in concert with the Forestwide Consultation in place for these species.

As required by the Act, Biological Assessments were prepared addressing the potential impacts to these species. The analyses concluded that this project would have no effect on the bald eagle or peregrine falcon, and is not likely to adversely affect the southwestern willow flycatcher or the Colorado River fish species. This assessment has been reviewed by the USFWS who has issued written concurrence with the findings on October 5, 1998.

H. Forest Service Manual 2607.32 - Sensitive Species: The potential effects of my decisions on sensitive species (Link Canyon columbine, spotted bat, Northern goshawk, flammulated owl, and three-toed woodpecker) have been analyzed and documented in Section 3.7 of the FEIS and the Biological Evaluation in the project file. Individuals or habitat may be affected, but there will be no trend towards Federal listing or loss of viability of any of the sensitive species due to my decisions.

I. National Historic Preservation Act: USHPO has concurred with our findings of this analysis in a letter dated September 22, 1998. The Forest Service consulted with the Navajo, Pueblo of the Zuni, the Hopi, the Paiute of Utah and the Ute Tribes. The purpose of this consultation has been to identify tribal concerns with the project and to identify any sites that tribes may ascribe traditional cultural values to. The Ute Tribe expressed concerns with sites containing rock art (total of two sites) and one site tentatively described as a game kill site. These concerns have been taken into account in my decisions.

J. Secretary of Agriculture Memorandum, 1827: My decisions are in conformance for prime farmland, rangeland and forestland.

K. Clean Water Act: The Clean Water Act (CWA) requires each State to implement its own water quality standards. The State of Utah's Water Quality Antidegradation Policy requires maintenance of water quality to protect existing instream Beneficial Uses on streams designated as Category I High Quality Waters. All surface waters within the Project Area are designated as High Quality (Category I). This means they will be maintained at existing high quality. The State of Utah and the Forest Service have agreed through a 1993 Memorandum of Understanding to use Forest Plan direction and soil and water conservation practices to meet the water quality protection elements of the Utah Nonpoint Source Management Plan. The Beneficial Uses and High Quality of

water in the Project Area would be maintained during and following the project through the performance standards, analogous to soil and water conservation practices, required by SMCRA.

L. Executive Order 119900 of May, 1977: This order requires the Forest Service to take action to minimize destruction, loss, or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands. In compliance with this order, Forest Service direction requires that an analysis be completed to determine whether adverse impacts would result. The locations of wetlands in the Project Area were identified and shown in Figure 3-11 of the FEIS. My decisions specifically address potential impacts to wetlands by protecting water sources that may be at risk due to subsidence. Additionally, the project through the performance standards, analogous to soil and water conservation practices, required by SMCRA will assure compliance with this Executive Order.

M. Executive Order 11988 of May, 1977: This order requires the Forest Service to provide leadership and to take action to (1) minimize adverse impacts associated with occupancy and modification of floodplains and reduce risks of flood loss, (2) minimize impacts of floods on human safety, health, and welfare, and (3) restore and preserve the natural and beneficial values served by floodplains. In compliance with this order, Forest Service direction requires that an analysis be completed to determine the significance of potential impacts to floodplains. No floodplains were identified in the Project Area (FEIS, page 3-62).

N. Civil Rights: Based on comments received during scoping and the comment period for the DEIS, no conflicts have been identified with other Federal, State, or local agencies, tribal governments, minorities, women, or civil rights of any United States Citizen that would result from my decisions.

O. Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations.": Based on comments received during scoping and the comment period for the DEIS, no adverse environmental or human health effects on minority or low income populations have been identified that would result from my decisions (FEIS, page 3-246).

IX. APPEAL PROVISIONS AND IMPLEMENTATION

Detailed records of the environmental analysis are available for public review at the Manti-La Sal National Forest Supervisor's Office, 599 West Price River Drive, Price, Utah, 84501. For further information on my decisions, contact Liane Mattson, Team Leader, or Carter Reed, Forest Geologist, at the Manti-La Sal National Forest, 599 West Price River Drive, Price, Utah 84501 (telephone number 435-637-2817).

Code of Federal Regulations Title 36 Part 215 (36 CFR 215)

My decisions are subject to appeal pursuant to 36 CFR 215.7. As stated in 36 CFR 215.11, an appeal may be filed by any person or non-Federal organization (Federal agencies may not appeal) that has submitted written comment in response to the DEIS. A written appeal must be submitted within 45 days after the date of the notice of this decision is published in the *Sun Advocate*, Price, Utah. Appeals must be submitted to:

Regional Forester
USDA Forest Service, Intermountain Region
ATTN: Appeals Deciding Officer
324 25th Street
Ogden, Utah 84401

Appeals must meet the content requirements of 36 CFR 215.14. If no appeal is received, implementation of my decisions may occur on, but not before, five business days from the close of the appeal filing period. If an appeal is received, implementation may not occur for 15 days following the date of appeal disposition.

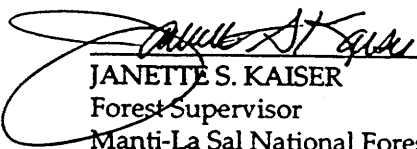
Code of Federal Regulations Title 36 Part 251 (36 CFR 251)

My decisions are alternately subject to appeal under 36 CFR 251 by signatories or holders of written authorizations to occupy and use National Forest System lands affected by these decisions and other signatories or holders who have responded to our notices of this project. A written appeal must be submitted within 45 days after the date of the notice of this decision is published in the *Sun Advocate*, Price, Utah. Appeals must be simultaneously submitted to:

Regional Forester
USDA Forest Service, Intermountain Region
ATTN: Reviewing Officer
324 25th Street
Ogden, Utah 84401

Forest Supervisor
Manti-La Sal National Forest
599 West Price River Drive
Price, Utah 85401

Appeals must meet the requirements of 36 CFR 251.90. Under 36 CFR 251.91, these decisions may be implemented during an appeal unless the Reviewing Officer grants a requested stay.


JANETTE S. KAISER
Forest Supervisor
Manti-La Sal National Forest

1-25-99
Date

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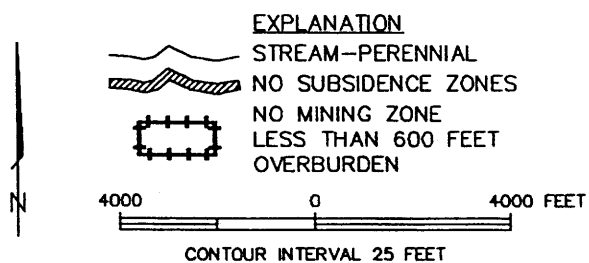
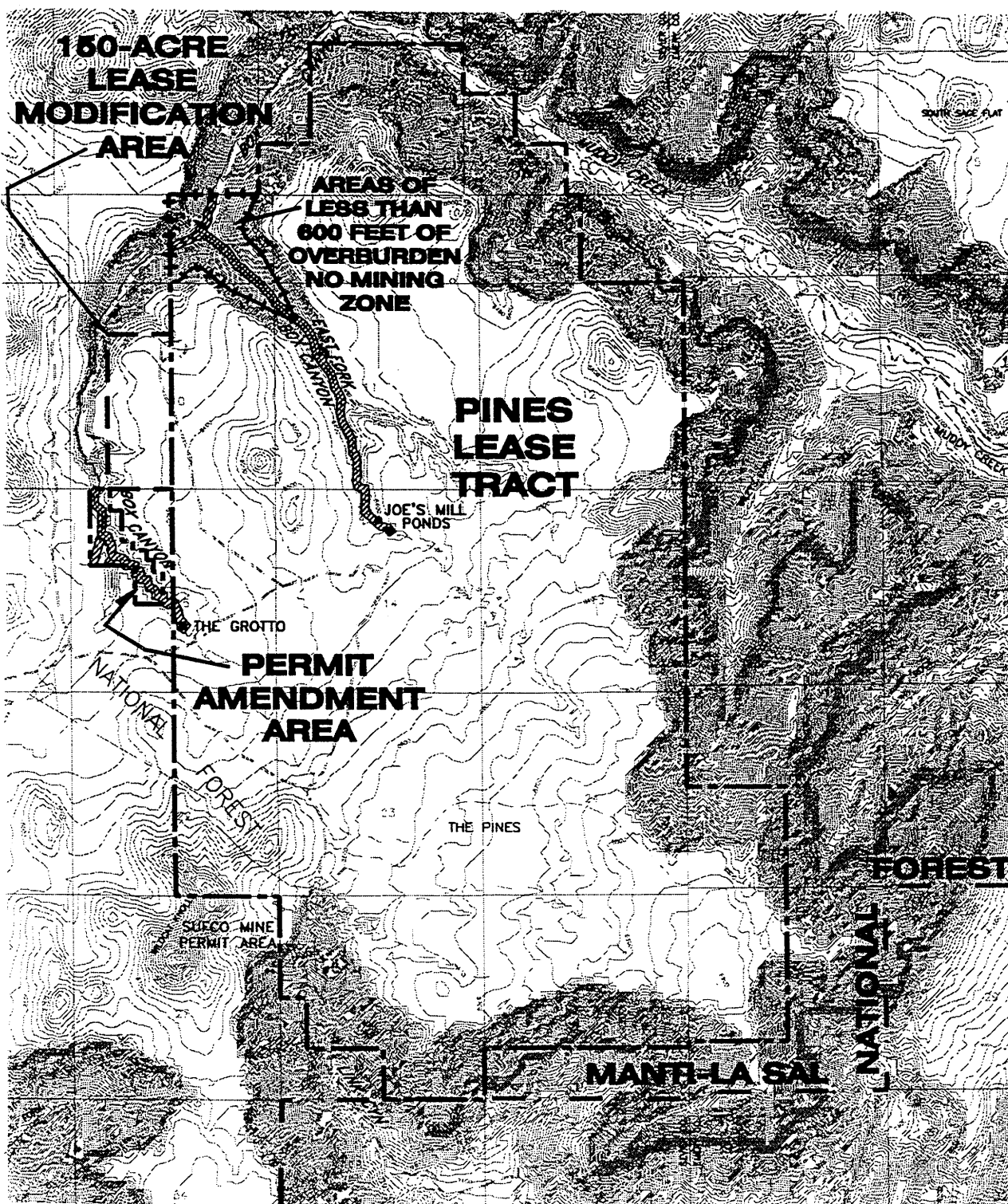
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MANTI-LA SAL NATIONAL FOREST PINES TRACT PROJECT

FIGURE 1
RECORD OF DECISION

SCALE 1"=4000'

DATE
DRAWN

8/14/98

LAST
REVISION

1/21/99